

Natural Resources Conservation Service

**Soil Science Career Group
Career Guide**

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Introduction

NRCS Career Mapping

These Career Maps will allow incumbents to identify the steps needed to qualify for higher-level positions in their current career group. Each career map has a career guide that will provide sample training and developmental activities needed to meet competency gaps between the incumbent's current position and his or her desired position. In addition, these maps will be used for recruitment purposes, explaining what a candidate needs to qualify for various positions.

Each occupation's Career Guide will include:

- A list of competencies with proficiency ratings identified for each position
- A sample list of training and experiential activities linked to developing each competency
- Clear guidance about how positions relate to each other

Together, these elements will help inform NRCS employees' and candidates' decisions about their careers at NRCS.

The purpose of this document is to provide an overview of the knowledge area requirements and associated training and developmental experiences associated with each position in the Soil Science career group. The Career Guides are not intended to be all encompassing, but rather to give users an overview and snapshot of each job within NRCS.

Career Group Description

This is an overall description of the career group.

Table 1. Soil Science Career Group Description

Description
These positions are responsible for studying the upper few meters of the Earth's crust in terms of its physical and chemical properties; distribution, genesis and morphology; and biological components.

Jobs within Soil Science

Table 2. Job Titles within Soil Science

OPM Series Code	Job Title
0499	Student Trainee (Soil Science)
0470	Soil Scientist
0470	Soil Survey Project Leader
0470	Resource Soil Scientist
0470	Soil Data Quality Specialist
0470	MLRA Soil Survey Leader
0470	Soil Scientist – Technical Specialist
0470	Senior Regional Soil Scientist
0470	State Soil Scientist
0470	Soil Survey Regional Director
0470	Supervisory Soil Scientist – National Leader

Crosswalk of Career Levels to the General Schedule

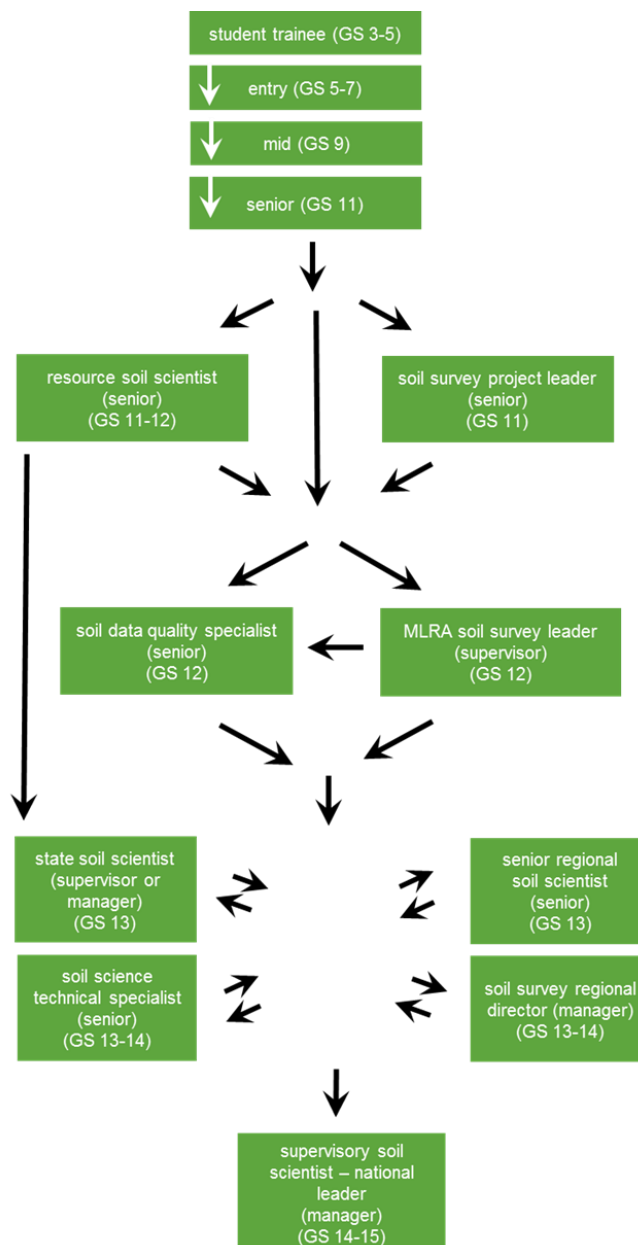
The table and career map below reflect the General Schedule (GS) levels associated with the individual Career Level labels. Definitions of the Career Levels are included in the Appendix.

Table 3. GS by Career Level

Job	Entry	Mid	Senior	Sup	Mgr
Student Trainee (Soil Science)	GS 3-5				
Soil Scientist	GS 5-7	GS 9	GS 11		
Soil Survey Project Leader			GS 11		
Resource Soil Scientist			GS 11-12		
Soil Data Quality Specialist			GS 12		
MLRA Soil Survey Leader				GS 12	
Soil Scientist – Technical Specialist			GS 13-14		
Senior Regional Soil Scientist			GS 13		
State Soil Scientist					GS 13
Soil Survey Regional Director					GS 13-14
Supervisory Soil Scientist – National Leader					GS 15

Soil Science Career Progression

This provides the career progression for the Soil Science career group. The progression is not meant to be prescriptive, but rather show options as one progresses through the career group, with the realization that transitions are based upon what opportunities are available.



Soil Science Job Descriptions

This is a general overview of each Soil Science job, intended to provide a common framework for describing what the job is.

Table 4. Soil Science Job Descriptions

Job	Description
Student Trainee (Soil Science)	This person is in a developmental position that is receiving intensified training in soil and water conservation and soil survey work.
Soil Scientist	This person serves as a member of the team developing soil survey information. They are responsible for the update and maintenance of soil surveys within their assigned geographical area. Their work is coordinated with other soil survey update activities within their state and adjoining states.
Soil Survey Project Leader	This person serves as the Soil Survey Project Leader or Senior Soil Scientist for the MLRA Soil Survey Office.
Resource Soil Scientist	This person serves as a regional technical expert providing direction and guidance for natural resource management, farm bill compliance, conducting information and education activities related to soils.
Soil Data Quality Specialist	This person serves as a geographical area technical coordinator for all phases of soil surveys, including soil classification, identification, mapping, map unit design, production, interpretations, Major Land Resource Area (MLRA) coordination, digitizing and database quality (NASIS), publication, and Soil Survey Geographic Database (SSURGO) development.
MLRA Soil Survey Leader	This person provides coordination, quality control, technical guidance, and staff assistance for all phases of initial mapping, updating, maintaining, and producing of soil surveys within the assigned MLRA region following the framework of the National Cooperative Soil Survey (NCSS) Program.

Job	Description
Soil Scientist – Technical Specialist	This person serves as a national technical lead for the development of regional and national level soil support and is responsible for providing technical soils expertise and user support.
Senior Regional Soil Scientist	This person serves as the senior regional technical expert for all phases of soil survey. They assist the Soil Survey Regional Director with ensuring that soil survey production is maintained while also maintaining quality throughout the region. They serve as the liaison from the regional office to the MLRA soil survey offices. They review and provide quality assurance and correlation for all soil survey products. They also maintain dialogue between state soil scientists and other cooperators.
State Soil Scientist	This person provides leadership for developing, managing, and directing a comprehensive and integrated technical soil services program for the state; and serves as a state liaison with National Cooperative Soil Survey (NCSS) cooperators.
Soil Survey Regional Director	This person provides leadership and management for assuring the scientific accuracy and technical quality of soil survey data including properties, classification, mapping, interpretations, database management, Ecological Site Description development, manuscripts and maps prepared for distribution in various formats throughout the region.
Supervisory Soil Scientist – National Leader	This person has national responsibility for the conceptualization, organization, management and national technical leadership of aspects of soil survey such as technical soil services, soil business, soil survey standards, and soil survey research and the Kellogg Soil Survey Laboratory.

Overall Soil Science Job Duties

Below are three major duties associated with all Career Levels in a job.

Table 5. Overall Soil Science Job Duties

Job	Duty 1	Duty 2	Duty 3
Student Trainee (Soil Science)	Assists in examining soil borings and comparing soil samples with descriptions and legends to classify soil type; draws soil boundaries on aerial photographs and labels the soil type, percent slope, and degree of erosion.	Assists in tabulating soil survey data and maintaining soil survey progress maps.	Assists in identifying farm boundaries on aerial photographs, laying out photo coverage for mapping, and placing match lines on photos.
Soil Scientist	Assists in examining soil borings and comparing soil samples with descriptions and legends to classify soil type; draws soil boundaries on aerial photographs and labels the soil type, percent slope, and degree of erosion; examines existing data to identify areas of different soils.	Assists in tabulating soil survey data and maintaining soil survey progress maps; evaluates soil survey data to assess their quality.	Assists in identifying farm boundaries on aerial photographs, laying out photo coverage for mapping, and placing match lines on photos; assists in the development of the soils database (NASIS), soil survey publications and reports and other technical and nontechnical materials.

Job	Duty 1	Duty 2	Duty 3
Soil Survey Project Leader	Studies the characteristics of soils, geology, topography, and landforms over the survey area to evaluate the consistency of map units; writes technical and nontechnical materials that relate to the soils and the soil survey.	Develops soil-landscape predictive models and uses soil-landscape relationships to systematically map and describe how soils occur in the landscape; examines soil geospatial information to identify areas where soil types and landscapes are not correctly associated; documents soil-plant relationships and records data in NASIS.	Records soil data on digital or hard copy aerial photographs and statistically analyzes data and correlates new map units.
Resource Soil Scientist	Works closely with producers and land owners to provide technical expertise for USDA conservation compliance.	Directs the implementation of the Farmland Protection Policy Act and the Farm and Ranchland Protection Program; provides expert input for farm bill programs.	Provides guidance to internal and external customers on the interpretation and application of soil survey information related to specific soil, water, air, plant, and animal resource concerns.

Job	Duty 1	Duty 2	Duty 3
Soil Data Quality Specialist	Serves as the Soil Survey Representative to an assigned area and assures the technical quality of soil survey data; coordinates the development and presentation of soil interpretations with the National Soil Survey Center (NSSC) and other technical soil scientists.	Provides training and technical assistance to soil survey offices in all phases of soil survey for an assigned area.	Participates in periodic technical field visits and progress reviews within an assigned area; assists other soil scientists with technical and administrative concerns, and ensures that National Cooperative Soil Survey (NCSS) standards are met.
MLRA Soil Survey Leader	Provides leadership, direction, and technical guidance to staff within the assigned soil survey area; controls the technical quality of all phases of soil survey area work including collection, description, classification, correlation, investigation, and interpretation of all soil data within the assigned soil survey MLRA region.	Develops soil-landscape predictive models and uses soil-landscape relationships to develop and evaluate map units and mapping legends and systematically map and describe how soils occur on the landscape; examines soil geospatial information to identify areas where soil map units and landscapes are not correctly associated.	Develops and manages the National Soil Information Systems (NASIS) according to National Cooperative Soil Survey (NCSS) standards; provides leadership and management of soil data join re-correlations.

Job	Duty 1	Duty 2	Duty 3
Soil Scientist – Technical Specialist	Develops and maintains the Soil Taxonomy and the Keys to Soil Taxonomy, along with integrating soil classification into the National Soil Survey Handbook (NSSH) and the Soil Survey Manual.	Contributes to the development of national policies, standards, and criteria for soil classification as a soil science expert.	Assists in developing new and innovative policy and guidelines for the use of soil survey data to enhance National Cooperative Soil Survey (NCSS) and international Soil Taxonomy.
Senior Regional Soil Scientist	Serves as the technical expert for all phases of the soil survey program; works with MLRA Soil Survey Office staff, State Soil Scientists, other Soil Survey Regional staff, and other Federal agencies to develop and monitor a five year work plan for the Soil Survey Region.	Assists the Soil Survey Regional Director in monitoring soil survey production across the region and working to improve productivity; coordinates soil investigations, special projects, and geomorphic assistance within the region.	Develops and recommends policy changes and guidelines for soil survey technical functions; develops and issues guidance for applying standards and interpretive guides.
State Soil Scientist	Provides leadership for developing, managing, and directing a comprehensive and integrated technical soil services programs for the state.	Serves as a state liaison with National Cooperative Soil Survey (NCSS) cooperators.	Provides supervision to members of the State Soils Program staff and/or Resource Soil Scientists.

Job	Duty 1	Duty 2	Duty 3
Soil Survey Regional Director	Provides leadership and management for assuring the scientific accuracy and technical quality of soil survey data throughout the Soil Survey R region.	Provides leadership for the development and implementation of the soil survey program in the Soil Survey Region.	Provides leadership of program activities making work assignments, evaluating performance, interviewing candidates, making selections, and determining training needs; responsible for all correlation activities within the Soil Survey Region.
Supervisory Soil Scientist – National Leader	Leads, manages, guides, and directs all activities of the Soil Survey Research and Laboratory Branch and ensures cooperation among its members and other National Soil Science Center (NSSC) Branches.	Provides leadership in research efforts needed for the development of concepts, criteria and procedures required to properly name, classify, correlate, characterize, and interpret the nation's soils.	Coordinates with scientists in other federal agencies, state agencies, universities and private organizations in selecting priorities and formulating research strategies and coordinating laboratory procedures.

Specifics by Job – Student Trainee (Soil Science)

Job Duties by Career Level – Student Trainee (Soil Science)

These are three major duties associated with individual Career Levels for the Student Trainee (Soil Science) job. In general, these are slight deviations of the Overall Duties, intended to show the differences in responsibility between the Career Levels.

Table 6. Career Level Duties – Student Trainee (Soil Science)

Job Duty	Entry
Assists in examining soil borings and comparing soil samples with descriptions and legends to classify soil type; draws soil boundaries on aerial photographs and labels the soil type, percent slope, and degree of erosion.	✓
Assists in tabulating soil survey data and maintaining soil survey progress maps.	✓
Assists in identifying farm boundaries on aerial photographs, laying out photo coverage for mapping, and placing match lines on photos.	✓

Foundational Competencies – Student Trainee (Soil Science)

These are the more significant foundational competencies of the job, applicable at all Career Levels. The set of more significant foundational competencies and associated proficiency levels should differentiate the job from other jobs within and across the career groups. Proficiency Rating Definitions are included in the Appendix. This list includes the more significant competencies.

Table 7. Foundational Competencies – Student Trainee (Soil Science)

Foundational Competency	Proficiency Rating
	Entry
1. Attention to Detail	1
2. Accountability	1
3. Organizing and Prioritizing Work	1
4. Representing the Agency	1
5. Resource Management	1
6. Technology Management	1
7. Organizational Awareness	1
8. Adaptability and Flexibility	1
9. Continuous Learning	1
10. Initiative	1
11. Integrity and Honesty	1
12. Stress Tolerance and Resilience	1
13. Oral Communication	1
14. Written Communication	1
15. Influence and Negotiating	1
16. Conflict Management	1
17. Interpersonal Skills	1
18. Teamwork	1
19. Creativity and Innovation	1
20. Decisive Judgment and Decision Making	1
21. Information Management	1

Foundational Competency	Proficiency Rating
	Entry
22. Problem Solving	1
23. Customer Service	1

Recommended Foundational Experience – Student Trainee (Soil Science)

These are the more significant experiences (e.g., stretch assignments), based on the Foundational Competencies, that an individual can participate in to prepare to be a viable candidate for the job.

Table 8. Recommended Foundational Experience – Student Trainee (Soil Science)

Foundational Experience	Career Level	Foundational Competency
Works outdoors independently under difficult natural conditions	Entry	Adaptability and Flexibility
		Initiative
		Stress Tolerance and Resilience
Enters data into a computer	Entry	Attention to Detail
		Accountability
		Technology Management
		Information Management

Occupational Competencies – Student Trainee (Soil Science)

These are the more significant occupational competencies of the job, applicable at all Career Levels. These should differentiate the job from other jobs within and across the career groups. Proficiency Rating Definitions are included in the Appendix. This list includes all occupational competencies associated with the Student Trainee (Soil Science) job.

Table 9. Occupational Competencies – Student Trainee (Soil Science)

Occupational Competency	Proficiency Rating
	Entry
1. Soil Examination & Classification	1
2. Geomorphology & Hydrology	1
3. Soil -Vegetation Relationship Identification	1
4. Soil Attribute Database Management	1
5. Spatial Data Management	1
6. Soil Mapping & Correlation	1
7. Soil Interpretations & Land Use Guidance	1

Recommended Education/Certifications – Student Trainee (Soil Science)

These are the recommended education/certification requirements to attain each level of the Student Trainee (Soil Science) job. These recommendations are based on Office of Personnel Management (OPM) guidelines as well as Subject Matter Expert recommendations.

Table 10. Recommended Education and Certifications – Student Trainee (Soil Science)

Education/Certifications	Career Level
	Entry
1. Work with field office and conservation districts on their projects to foster organizational awareness (R)	✓
2. Participate in FFA land judging or Envirothon (R)	✓
3. Participate in collegiate soil judging (R)	✓

R = Education/licensure that is recommended but not required to obtain the job at the specified level

Specifics by Job – Soil Scientist

Job Duties by Career Level – Soil Scientist

These are three major duties associated with the individual Career Levels for the Soil Scientist job. In general, these are slight deviations of the Overall Duties, and are intended to show differences in responsibility between the Career Levels.

Table 11. Career Level Duties – Soil Scientist

Job Duty	Entry	Mid	Senior
Uses geospatial technology to manipulate digital and analog geospatial data to examine and identify areas of different kinds of soils.	✓		
Assists in examining existing soils geospatial information to identify areas where soil types and landscapes are not correctly associated; updates National Soil Information System (NASIS) to address errors or gaps.	✓		
Assists the ecologists and MLRA soil survey leader in documenting basic soil-plant relationships and collects production estimates for crops, trees and grasses to develop ecological site descriptions.	✓		
Uses soil-landscape relationships to systematically map and describe the way soils occur in the landscape; assists MLRA Soil Survey Leader in developing soil landscape predictive models.		✓	
Analyzes data & designs new map units to provide more accurate interpretations for soil management.		✓	
Uses geospatial technology to edit soil survey maps; reviews soil interpretations for accuracy; creates new map units and data map units in NASIS.		✓	
Provides leadership and technical guidance in the assigned soil survey area including evaluating existing soil surveys to assess their quality and the development of strategies and plans to bring them up to modern standards.			✓

Job Duty	Entry	Mid	Senior
Provides leadership in designing and carrying out sampling activities including gathering laboratory, transect, and other field data to characterize and re-correlate existing soil survey maps to achieve a coordinated soil survey product throughout the assigned region.			✓
Uses geospatial technology to edit soil survey maps. Reviews soil interpretations for accuracy; designing and coordinating all mapping legends.			✓

Foundational Competencies – Soil Scientist

These are the more significant foundational competencies of the job, applicable at all Career Levels. The set of more significant foundational competencies and associated proficiency levels should differentiate the job from other jobs within and across the career groups. Proficiency Rating Definitions are included in the Appendix. This list includes the more significant competencies.

Table 12. Foundational Competencies – Soil Scientist

Foundational Competency	Proficiency Rating		
	Entry	Mid	Senior
1. Attention to Detail	1	2	3
2. Accountability	1	2	3
3. Organizing and Prioritizing Work	1	2	3
4. Representing the Agency	1	2	3
5. Resource Management	1	2	3
6. Technology Management	1	2	3
7. Organizational Awareness	1	2	3
8. Adaptability and Flexibility	1	2	3
9. Continuous Learning	1	2	3

Foundational Competency	Proficiency Rating		
	Entry	Mid	Senior
10. Initiative	1	2	3
11. Integrity and Honesty	1	2	3
12. Stress Tolerance and Resilience	1	2	3
13. Oral Communication	1	2	2
14. Written Communication	1	2	2
15. Influence and Negotiating	1	2	2
16. Conflict Management	1	1	2
17. Interpersonal Skills	1	2	3
18. Teamwork	1	2	3
19. Creativity and Innovation	1	2	2
20. Decisive Judgment and Decision Making	1	2	3
21. Information Management	1	2	2
22. Problem Solving	1	2	2
23. Customer Service	1	2	2

Many of the Occupational and Leadership experiences also address the foundational competencies.

Leadership Competencies – Soil Scientist

These are the more significant leadership competencies of the job, applicable at all Career Levels. The set of leadership competencies and associated proficiency levels should differentiate the job from other jobs within and across the career groups. Proficiency Rating Definitions are included in the Appendix. This list includes the more significant competencies.

Table 13. Leadership Competencies – Soil Scientist

Leadership Competency	Proficiency Rating		
	Entry	Mid	Senior
1. Fiscal Responsibility	NA	NA	NA
2. Assigning, Evaluating and Monitoring Work	NA	NA	1
3. Developing Others	NA	NA	1
4. Human Resource Management	NA	NA	1
5. Team Building	NA	NA	2
6. External Awareness	NA	NA	NA
7. Political Savvy	NA	NA	1
8. Vision	NA	NA	1
9. Strategic Thinking and Action	NA	NA	1
10. Relationship Management	NA	NA	NA
11. Leveraging Diversity	NA	NA	1
12. Public Service Motivation	NA	NA	1

Recommended Leadership Experience – Soil Scientist

These are the more significant experiences (e.g., stretch assignments), based on the Leadership Competencies, that an individual can participate in to prepare to be a viable candidate for the job.

Table 14. Recommended Leadership Experience – Soil Scientist

Leadership Experience	Career Level	Leadership Competency
Provides on-the-job training to entry- and mid-level Soil Scientists	Senior	Developing Others
Assigns, monitors, and evaluates work to entry- and mid-level Soil Scientists	Senior	Assigning, Evaluating and Monitoring Work
Provides input into annual plans	Senior	Developing Others
		Human Resource Management
		Strategic Thinking and Action
Writes technical reports	Senior	Strategic Thinking and Action
Makes presentations to internal and external groups	Senior	External Awareness
		Relationship Management
		Public Service Motivation
Coaches and serves as a role model for entry- and mid-level Soil Scientists	Senior	Assigning, Evaluating and Monitoring Work
		Developing Others
		Leveraging Diversity
Communicates the vision for projects and promotes cooperation and team development	Senior	Developing Others
		Team Building
		Vision
		Relationship Management
		Leveraging Diversity

Leadership Experience	Career Level	Leadership Competency
Builds trust and relationships with internal and external customers through brainstorming activities, collaboration, assessing customer needs, identifying solutions, and strategic thinking	Senior	Political Savvy
		Vision
		Strategic Thinking and Action
		Relationship Management
		Public Service Motivation
Manages communications with diverse audience groups (knowing your audience)	Senior	External Awareness
		Political Savvy
		Strategic Thinking and Action
		Relationship Management
		Public Service Motivation

Occupational Competencies – Soil Scientist

These are the more significant occupational competencies of the job, applicable at all Career Levels. These competencies should differentiate the job from other jobs within and across the career groups. Proficiency Rating Definitions are included in the Appendix. This list includes all of the occupational competencies associated with the Soil Scientist job.

Table 15. Occupational Competencies – Soil Scientist

Occupational Competency	Proficiency Rating		
	Entry	Mid	Senior
1. Soil Examination & Classification	1	3	3
2. Geomorphology & Hydrology	1	2	3
3. Soil -Vegetation Relationship Identification	1	3	3
4. Soil Attribute Database Management	1	3	3
5. Spatial Data Management	1	3	3
6. Soil Mapping & Correlation	1	3	4
7. Soil Interpretations & Land Use Guidance	1	3	3

Recommended Occupational Experience – Soil Scientist

These are the more significant experiences (e.g., stretch assignments), based on the Occupational Competencies, that an individual can participate in to prepare to be a viable candidate for the job.

Table 16. Recommended Occupational Experience – Soil Scientist

Occupational Experience	Career Level	Occupational Competency
Works outdoors independently under difficult natural conditions	Entry	Soil Examination & Classification
Enters data into a computer	Entry	Soil Attribute Database Management Spatial Data Management
Drives long distances and off-road	Entry	Soil Examination & Classification
Operates hand tools	Entry	Soil Examination & Classification
		Soil – Vegetation Relationship Identification
		Soil Mapping & Correlation
		Soil Interpretations & Land Use Guidance
Uses GIS and GPS technology	Entry	Soil Examination & Classification
		Soil Attribute Database Management
		Spatial Data Management
		Soil Mapping & Correlation
Drafts/Writes a soil profile description	Entry	Soil Interpretations & Land Use Guidance
		Soil Examination & Classification
		Soil – Vegetation Relationship Identification
		Soil Interpretations & Land Use Guidance

Occupational Experience	Career Level	Occupational Competency
Reads topographic maps and aerial photo interpretations	Entry	Soil Examination & Classification
		Soil Mapping & Correlation
		Soil Interpretations & Land Use Guidance
Performs a transect independently	Mid	Soil Examination & Classification
		Soil Mapping & Correlation
Analyzes soil landscape relationships	Mid	Soil Examination & Classification
Designs and performs a transect independently	Mid	Soil Examination & Classification
		Soil Mapping & Correlation
Manipulates and analyzes GIS and GPS data	Mid	Soil Examination & Classification
		Soil Attribute Database Management
		Spatial Data Management
		Soil Mapping & Correlation
Recommends revisions to soil series descriptions	Mid	Soil Interpretations & Land Use Guidance
		Soil Examination & Classification
		Soil Mapping & Correlation
Classifies soil profile descriptions	Mid	Soil Interpretations & Land Use Guidance
		Soil Examination & Classification
		Soil – Vegetation Relationship Identification
Independently populates and queries data in a soils database and run validation checks	Mid	Soil Interpretations & Land Use Guidance
		Soil Attribute Database Management
		Spatial Data Management
		Geomorphology & Hydrology

Occupational Experience	Career Level	Occupational Competency
Analyzes soil data	Mid	Soil Examination & Classification
		Soil Mapping & Correlation
		Soil Interpretations & Land Use Guidance
		Soil Attribute Database Management
		Spatial Data Management
Designs and independently manages projects on a Major Land Resource Area (MLRA) basis	Senior	Soil Examination & Classification
		Soil Mapping & Correlation
Independently populates and queries data in a soils database	Senior	Soil Attribute Database Management
Manage spatial data	Senior	Spatial Data Management
Provides technical soil services	Senior	Soil Examination & Classification
		Soil Mapping & Correlation
		Soil Interpretations & Land Use Guidance
Runs and reviews validations and make corrections	Senior	Soil Attribute Database Management
		Spatial Data Management
		Geomorphology & Hydrology
		Soil Interpretations & Land Use Guidance
		Soil Examination & Classification
		Soil Mapping & Correlation

Recommended Trainings – Soil Scientist

These are the recommended trainings for individuals applicable at all Career Levels. The set of recommended trainings and associated competencies should provide specific opportunities for individuals to better prepare themselves for jobs at their desired job level. Competency Definitions are included in the appendix.

Table 17. Recommended Trainings – Soil Scientist

Recommended Training	Career Level	Competencies
Introduction to NRCS Part 1 and 2	Entry	Organizational Awareness (F)
Orientation for New Employees	Entry	Organizational Awareness (F)
Conservation Boot Camp (abbreviated version – 3 weeks)	Entry	Soil Examination & Classification (O)
		Soil Mapping & Correlation (O)
		Soil Interpretations & Land Use Guidance (O)
		Geomorphology & Hydrology (O)
Basic Soil Survey Field and Lab	Entry	Soil Examination & Classification (O)
		Soil Mapping & Correlation (O)
		Soil Interpretations & Land Use Guidance (O)
		Soil Attribute Database Management (O)
		Spatial Data Management (O)
		Information Management (F)
NASIS – Basic	Entry	Soil Examination & Classification (O)
		Soil Mapping & Correlation (O)
		Soil Interpretations & Land Use Guidance (O)
		Soil Attribute Database Management (O)
		Spatial Data Management (O)
		Information Management (F)

Recommended Training	Career Level	Competencies
NASIS - Site/Pedon Data	Entry	Soil Examination & Classification (O)
		Soil Mapping & Correlation (O)
		Soil Interpretations & Land Use Guidance (O)
		Soil Attribute Database Management (O)
		Spatial Data Management (O)
		Information Management (F)
Digital Soil Survey Data Editing	Entry	Soil Examination & Classification (O)
		Soil Mapping & Correlation (O)
		Soil Interpretations & Land Use Guidance (O)
		Soil Attribute Database Management (O)
		Information Management (F)
Introduction to Digital Soil Mapping	Entry	Soil Examination & Classification (O)
		Soil Mapping & Correlation (O)
		Soil Interpretations & Land Use Guidance (O)
		Soil Attribute Database Management (O)
		Information Management (F)
Soil Correlation	Mid	Soil Mapping & Correlation (O)
NASIS - Understanding Soil Interpretations	Mid	Soil Examination & Classification (O)
		Soil Mapping & Correlation (O)
		Soil Interpretations & Land Use Guidance (O)
		Soil Attribute Database Management (O)
		Spatial Data Management (O)
		Information Management (F)
Digital Soil Survey Data Management	Mid	Soil Examination & Classification (O)
		Soil Mapping & Correlation (O)
		Soil Interpretations & Land Use Guidance (O)
		Soil Attribute Database Management (O)
		Information Management (F)

Recommended Training	Career Level	Competencies
Remote Sensing for Soil Survey Applications	Mid	Soil Examination & Classification (O)
		Soil Mapping & Correlation (O)
		Soil Interpretations & Land Use Guidance (O)
		Soil Attribute Database Management (O)
Supervising for Excellence	Mid	Developing Others (L)
		Team Building (L)
		Strategic Thinking & Action (L)
		Relationship Management (L)
		Public Service Motivation (L)
Managing for Excellence	Mid	Developing Others (L)
		Team Building (L)
		Strategic Thinking & Action (L)
		Relationship Management (L)
		Public Service Motivation (L)
Management of Soil Survey by MLRA	Senior	Soil Examination & Classification (O)
		Soil Mapping & Correlation (O)
		Soil Interpretations & Land Use Guidance (O)
		Soil Attribute Database Management (O)
		Information Management (F)
Soil Geomorphic Institute	Senior	Geomorphology & Hydrology (O)
NASIS - Designing and Developing Soil Interpretations	Senior	Soil Examination & Classification (O)
		Soil Mapping & Correlation (O)
		Soil Interpretations & Land Use Guidance (O)
		Soil Attribute Database Management (O)
		Spatial Data Management (O)
		Information Management (F)

Recommended Training	Career Level	Competencies
NASIS - Query Writing	Senior	Soil Examination & Classification (O)
		Soil Mapping & Correlation (O)
		Written Communication (F)
Soil Science Institute	Senior	Soil Examination & Classification (O)
		Soil Mapping & Correlation (O)
		Soil Interpretations & Land Use Guidance (O)
		Geomorphology & Hydrology (O)

F = Foundational Competency; L=Leadership Competency; and O = Occupational Competency.

Recommended Education/Certifications – Soil Scientist

These are the recommended education/certification requirements to be able to attain each level of the Soil Scientist job. These recommendations are based on Office of Personnel Management (OPM) guidelines as well as Subject Matter Expert recommendations.

Table 18. Recommended Education and Certifications – Soil Scientist

Education/Certifications	Career Level		
	Entry	Mid	Senior
1. Bachelor's degree in soil science or related discipline, including 30 semester hours in biological, physical or earth sciences, with 15 of these hours in subjects like soil genesis, soil chemistry, soil physics, soil microbiology and soil fertility	✓	✓	✓

Professional Associations – Soil Scientist

These two professional associations are recommended as resources for individuals interested in the Soil Scientist job.

Table 19. Professional Associations – Soil Scientist

Soil Science Society of America
Regional and State Soil Science Societies

Specifics by Job – Soil Survey Project Leader

Job Duties by Career Level – Soil Survey Project Leader

These are three major duties associated with the individual Career Levels for the Soil Survey Project Leader job. In general, these are slight deviations of the Overall Duties, and are intended to show the differences in responsibility between the Career Levels.

Table 20. Career Level Duties – Soil Survey Project Leader

Job Duty	Senior
Studies the characteristics of soils, geology, topography, and landforms over the survey area to evaluate the consistency of map units; writes technical and nontechnical materials that relate to the soils and the soil survey.	✓
Develops soil-landscape predictive models and uses soil-landscape relationships to systematically map and describe how soils occur in the landscape; examines soils geospatial information to identify areas where soil types and landscapes are not correctly associated; documents soil-plant relationships and records data in NASIS.	✓
Records soil data on digital or hard copy aerial photographs and statistically analyzes data and correlates new map units.	✓

Foundational Competencies – Soil Survey Project Leader

These are the more significant foundational competencies of the job, applicable at all Career Levels. The set of more significant foundational competencies and associated proficiency levels should differentiate the job from other jobs within and across the career groups. Proficiency Rating Definitions are included in the Appendix. This list includes the more significant competencies.

Table 21. Foundational Competencies – Soil Survey Project Leader

Foundational Competency	Proficiency Rating
	Senior
1. Attention to Detail	3
2. Accountability	3
3. Organizing and Prioritizing Work	3
4. Representing the Agency	3
5. Resource Management	3
6. Technology Management	3
7. Organizational Awareness	3
8. Adaptability and Flexibility	3
9. Continuous Learning	3
10. Initiative	3
11. Integrity and Honesty	3
12. Stress Tolerance and Resilience	3
13. Oral Communication	2
14. Written Communication	2
15. Influence and Negotiating	2
16. Conflict Management	2
17. Interpersonal Skills	3
18. Teamwork	3
19. Creativity and Innovation	2
20. Decisive Judgment and Decision Making	3
21. Information Management	2

Foundational Competency	Proficiency Rating
	Senior
22. Problem Solving	2
23. Customer Service	2

Many of the Occupational and Leadership experiences also address the foundational competencies.

Leadership Competencies – Soil Survey Project Leader

These are the more significant leadership competencies of the job, applicable at all Career Levels. The set of more significant leadership competencies and associated proficiency levels should differentiate the job from other jobs within and across the career groups. Proficiency Rating Definitions are included in the Appendix. This list includes the more significant competencies.

Table 22. Leadership Competencies – Soil Survey Project Leader

Leadership Competency	Proficiency Rating
	Senior
1. Fiscal Responsibility	NA
2. Assigning, Evaluating and Monitoring Work	1
3. Developing Others	1
4. Human Resource Management	1
5. Team Building	2
6. External Awareness	NA
7. Political Savvy	1
8. Vision	1
9. Strategic Thinking and Action	1
10. Relationship Management	NA
11. Leveraging Diversity	1
12. Public Service Motivation	1

Recommended Leadership Experience – Soil Survey Project Leader

These are the more significant experiences (e.g., stretch assignments), based on the Leadership Competencies, that an individual can participate in to prepare to be a viable candidate for the job.

Table 23. Recommended Leadership Experience – Soil Survey Project Leader

Leadership Experience	Career Level	Leadership Competency
Provides on-the-job training to entry- and mid-level Soil Scientists	Senior	Developing Others
		Team Building
Assigns, monitors, and evaluates work to entry- and mid-level Soil Scientists	Senior	Assigning, Evaluating, and Monitoring Work
Provides input into annual plans	Senior	Developing Others
		Human Resource Management
		Strategic Thinking and Action
Writes technical reports (e.g., soil survey manuscripts)	Senior	Strategic Thinking and Action
Makes presentations to internal and external groups	Senior	External Awareness
		Relationship Management
		Public Service Motivation
Coaches and serves as a role model for entry- and mid-level Soil Scientists	Senior	Assigning, Evaluating, and Monitoring Work
		Developing Others
		Leveraging Diversity
Communicates the vision for projects and promotes cooperation and team development	Senior	Developing Others
		Team Building
		Vision
		Relationship Management
		Leveraging Diversity

Leadership Experience	Career Level	Leadership Competency
Builds trust and relationships with internal and external customers through brainstorming activities, collaboration, assessing customer needs, identifying solutions, and strategic thinking	Senior	Political Savvy
		Vision
		Strategic Thinking and Action
		Relationship Management
		Public Service Motivation
Manages communications with diverse audience groups (knowing your audience)	Senior	External Awareness
		Political Savvy
		Strategic Thinking and Action
		Relationship Management
		Public Service Motivation

Occupational Competencies – Soil Survey Project Leader

These are the more significant occupational competencies of the job, applicable at all Career Levels. These competencies should differentiate the job from other jobs within and across the career groups. Proficiency Rating Definitions are included in the Appendix. This list includes all of the occupational competencies associated with the Soil Survey Project Leader job.

Table 24. Occupational Competencies – Soil Survey Project Leader

Occupational Competency	Proficiency Rating
	Senior
1. Soil Examination & Classification	3
2. Geomorphology & Hydrology	3
3. Soil -Vegetation Relationship Identification	3
4. Soil Attribute Database Management	3
5. Spatial Data Management	3
6. Soil Mapping & Correlation	4
7. Soil Interpretations & Land Use Guidance	3

Recommended Occupational Experience – Soil Survey Project Leader

These are the more significant experiences (e.g., stretch assignments), based on the Occupational Competencies, that an individual can participate in to prepare to be a viable candidate for the job.

Table 25. Recommended Occupational Experience – Soil Survey Project Leader

Occupational Experience	Career Level	Occupational Competency
Designs and independently manages projects on a non-MLRA basis	Senior	Soil Examination & Classification
		Soil Mapping & Correlation
Independently populates and queries data in a soils database	Senior	Soil Attribute Database Management
Creates and manages spatial data	Senior	Spatial Data Management
Provides technical soil services	Senior	Soil Examination & Classification
		Soil Mapping & Correlation
		Soil Interpretations & Land Use Guidance
Runs and reviews validations and make corrections	Senior	Soil Attribute Database Management
		Spatial Data Management
		Geomorphology & Hydrology
		Soil Interpretations & Land Use Guidance
		Soil Examination & Classification
		Soil Mapping & Correlation

Recommended Trainings – Soil Survey Project Leader

These are the recommended trainings for individuals working to become a Soil Survey Project Leader. The set of recommended trainings and associated competencies should provide specific opportunities for individuals to better prepare themselves for the Soil Survey Project Leader job. Competency Definitions are included in the appendix.

Table 26. Recommended Trainings – Soil Survey Project Leader

Recommended Training	Career Level	Competencies
Supervising for Excellence	Senior	Developing Others (L)
		Team Building (L)
		Human Resource Management (L)
		Strategic Thinking & Action (L)
		Relationship Management (L)
		Leveraging Diversity (L)
		Resource Management (F)
		Influence and Negotiating (F)
		Conflict Management (F)
		Interpersonal Skills (F)
		Problem Solving (F)
Effective Presentations	Senior	Representing the Agency (F)
		Oral Communication (F)
		Interpersonal Skills (F)
Soil Science Institute	Senior	Soil Examination & Classification (O)
		Soil Mapping & Correlation (O)
		Soil Interpretations & Land Use Guidance (O)
		Geomorphology & Hydrology (O)

Recommended Training	Career Level	Competencies
Management of Soil Surveys by MLRA	Senior	Soil Examination & Classification (O)
		Soil Mapping & Correlation (O)
		Soil Interpretations & Land Use Guidance (O)
		Soil Attribute Database Management (O)
		Information Management (F)
Reg. IV Wetlands Corps of Engineers	Senior	Soil Examination & Classification (O)
		Geomorphology & Hydrology (O)
		Soil – Vegetation Relationship Identification (O)
		Soil Mapping & Correlation (O)
		Soil Interpretations & Land Use Guidance (O)
		Information Management (F)
Soil Geomorphic Institute	Senior	Geomorphology & Hydrology (O)
NASIS - Designing and Developing Soil Interpretations	Senior	Soil Examination & Classification (O)
		Soil Mapping & Correlation (O)
		Soil Interpretations & Land Use Guidance (O)
		Soil Attribute Database Management (O)
		Spatial Data Management (O)
		Information Management (F)
NASIS - Query Writing	Senior	Soil Examination & Classification (O)
		Soil Mapping & Correlation (O)
		Written Communication (F)

F = Foundational Competency; L=Leadership Competency; and O = Occupational Competency.

Recommended Education/Certifications – Soil Survey Project Leader

These are the recommended education/certification requirements for the Soil Survey Project Leader job

Table 27. Recommended Education and Certifications – Soil Survey Project Leader

Education/ Certifications	Career Level
	Senior
1. Bachelor's degree in soil science or related discipline, including 30 semester hours in biological, physical or earth sciences, with 15 of these hours in subjects like soil genesis, soil chemistry, soil physics and soil fertility	✓

Professional Associations – Soil Survey Project Leader

These two professional associations are recommended as resources for individuals interested in the Soil Survey Project Leader job.

Table 28. Professional Associations – Soil Survey Project Leader

Soil Science Society of America
Regional and State Soil Science Societies

Specifics by Job – Resource Soil Scientist

Job Duties by Career Level – Resource Soil Scientist

These are three major duties associated with the individual Career Levels for the Resource Soil Scientist job. In general, these are slight deviations of the Overall Duties, and are intended to show the differences in responsibility between the Career Levels.

Table 29. Career Level Duties – Resource Soil Scientist

Job Duty	Senior
Works closely with producers and landowners to provide technical expertise for USDA conservation compliance.	✓
Directs the implementation of the Farmland Protection Policy Act and the Farm and Ranchland Protection Program; provides expert input for farm bill programs.	✓
Provides guidance to internal and external customers on the interpretation and application of soil survey information related to specific soil, water, air, plant, and animal resource concerns.	✓

Foundational Competencies – Resource Soil Scientist

These are the more significant foundational competencies of the job, applicable at all Career Levels. The set of more significant foundational competencies and associated proficiency levels should differentiate the job from other jobs within and across the career groups. Proficiency Rating Definitions are included in the Appendix. This list includes the more significant competencies.

Table 30. Foundational Competencies – Resource Soil Scientist

Foundational Competency	Proficiency Rating
	Senior
1. Attention to Detail	3
2. Accountability	3
3. Organizing and Prioritizing Work	3
4. Representing the Agency	3
5. Resource Management	3
6. Technology Management	3
7. Organizational Awareness	3
8. Adaptability and Flexibility	3
9. Continuous Learning	3
10. Initiative	3
11. Integrity and Honesty	3
12. Stress Tolerance and Resilience	3
13. Oral Communication	2
14. Written Communication	2
15. Influence and Negotiating	2
16. Conflict Management	2
17. Interpersonal Skills	3
18. Teamwork	3
19. Creativity and Innovation	2
20. Decisive Judgment and Decision Making	3
21. Information Management	2

Foundational Competency	Proficiency Rating
	Senior
22. Problem Solving	2
23. Customer Service	2

Many of the Occupational and Leadership experiences also address the foundational competencies.

Leadership Competencies – Resource Soil Scientist

These are the more significant leadership competencies of the job, applicable at all Career Levels. The set of more significant leadership competencies and associated proficiency levels should differentiate the job from other jobs within and across the career groups. Proficiency Rating Definitions are included in the Appendix. This list includes the more significant competencies.

Table 31. Leadership Competencies – Resource Soil Scientist

Leadership Competency	Proficiency Rating
	Senior
1. Fiscal Responsibility	NA
2. Assigning, Evaluating and Monitoring Work	1
3. Developing Others	1
4. Human Resource Management	1
5. Team Building	2
6. External Awareness	1
7. Political Savvy	1
8. Vision	1
9. Strategic Thinking and Action	1
10. Relationship Management	NA
11. Leveraging Diversity	1
12. Public Service Motivation	1

Recommended Leadership Experience – Resource Soil Scientist

These are the more significant experiences (e.g., stretch assignments), based on the Leadership Competencies, that an individual can participate in to prepare to be a viable candidate for the job.

Table 32. Recommended Leadership Experience – Resource Soil Scientist

Leadership Experience	Career Level	Leadership Competency
Provides on-the-job training to NRCS staff and external partners	Senior	Developing Others
		Team Building
		External Awareness
		Relationship Management
		Public Service Motivation
Plans, prioritizes, and organizes work	Senior	Assigning, Evaluating, and Monitoring Work
		Strategic Thinking and Action
Writes technical reports	Senior	Strategic Thinking and Action
Makes presentations to internal and external groups	Senior	External Awareness
		Relationship Management
		Public Service Motivation
Coaches and serves as a role model for NRCS staff	Senior	Assigning, Evaluating, and Monitoring Work
		Developing Others
		Leveraging Diversity
Collaborates/cooperates with MLRA soil survey leaders	Senior	Team Building
		Political Savvy
		Vision
		Strategic Thinking and Action
		Relationship Management
		Leveraging Diversity

Leadership Experience	Career Level	Leadership Competency
Builds trust and relationships with internal and external customers through brainstorming activities, collaboration, assessing customer needs, identifying solutions, and strategic thinking	Senior	Political Savvy
		Vision
		Strategic Thinking and Action
		Relationship Management
		Public Service Motivation
Manages communications with diverse audience groups (knowing your audience)	Senior	External Awareness
		Political Savvy
		Strategic Thinking and Action
		Relationship Management
		Public Service Motivation
Establishes and fosters long-term relationships with customers	Senior	External Awareness
		Political Savvy
		Strategic Thinking and Action
		Relationship Management
		Public Service Motivation
Manages contentious situations with customer and identifies situations where escalation is needed	Senior	Human Resource Management
		Political Savvy
		Relationship Management

Occupational Competencies – Resource Soil Scientist

These are the more significant occupational competencies of the job, applicable at all Career Levels. These competencies should differentiate the job from other jobs within and across the career groups. Proficiency Rating Definitions are included in the Appendix. This list includes all of the occupational competencies associated with the Resource Soil Scientist job.

Table 33. Occupational Competencies – Resource Soil Scientist

Occupational Competency	Proficiency Rating
	Senior
1. Soil Examination & Classification	3
2. Geomorphology & Hydrology	3
3. Soil -Vegetation Relationship Identification	3
4. Soil Attribute Database Management	3
5. Spatial Data Management	3
6. Soil Mapping & Correlation	4
7. Soil Interpretations & Land Use Guidance	3

Recommended Occupational Experience – Resource Soil Scientist

These are the more significant experiences (e.g., stretch assignments), based on the Occupational Competencies, that an individual can participate in to prepare to be a viable candidate for the job.

Table 34. Recommended Occupational Experience – Resource Soil Scientist

Occupational Experience	Career Level	Occupational Competency
Provides direct support to field offices for technical soil services	Senior	Soil Examination & Classification
		Geomorphology & Hydrology
		Soil – Vegetation Relationship Identification
		Soil Mapping & Correlation
		Soil Interpretations & Land Use Guidance
Processes Farm Bill program assessments and eligibility	Senior	Soil Interpretations & Land Use Guidance
Assesses conservation compliance	Senior	Soil Examination & Classification
		Soil Mapping & Correlation
		Soil Interpretations & Land Use Guidance
Provides training to field offices, general public, and other federal and state agencies	Senior	Soil Examination & Classification
		Geomorphology & Hydrology
		Soil – Vegetation Relationship Identification
		Soil Mapping & Correlation
		Soil Interpretations & Land Use Guidance

Occupational Experience	Career Level	Occupational Competency
Performs and documents onsite investigations	Senior	Soil Examination & Classification
		Soil Mapping & Correlation
		Soil Interpretations & Land Use Guidance
Assesses and trains others on soil health	Senior	Soil Examination & Classification
		Geomorphology & Hydrology
		Soil – Vegetation Relationship Identification
		Soil Mapping & Correlation
		Soil Interpretations & Land Use Guidance
Creates maps using GIS technology	Senior	Spatial Data Management
		Soil Mapping & Correlation
Collects data for National Resources Inventory (NRI)	Senior	Soil Attribute Database Management
		Spatial Data Management
Evaluates Farmland Protection Policy Act (FPPA) determinations for important farmlands	Senior	Soil Interpretations & Land Use Guidance
Works collaboratively with Soil Survey offices	Senior	Soil Examination & Classification
		Geomorphology & Hydrology
		Soil – Vegetation Relationship Identification
		Soil Mapping & Correlation
		Soil Interpretations & Land Use Guidance

Recommended Trainings – Resource Soil Scientist

These are the recommended trainings for individuals working to become a Resource Soil Scientist. The set of recommended trainings and associated competencies should provide specific opportunities for individuals to better prepare themselves for the Resource Soil Scientist job. Competency Definitions are included in the appendix.

Table 35. Recommended Trainings – Resource Soil Scientist

Recommended Training	Career Level	Competencies
Advanced Hydric Soils	Senior	Geomorphology & Hydrology (O) Information Management (F)
Technical Soil Services	Senior	Soil Examination & Classification (O) Geomorphology & Hydrology (O) Soil – Vegetation Relationship Identification (O) Soil Mapping & Correlation (O) Soil Interpretations & Land Use Guidance (O) Information Management (F)
Reg. IV Wetlands Corps of Engineers	Senior	Soil Examination & Classification (O) Geomorphology & Hydrology (O) Soil – Vegetation Relationship Identification (O) Soil Mapping & Correlation (O) Soil Interpretations & Land Use Guidance (O) Information Management (F)
Application of ArcGIS and Soil Data Viewer for Technical Soil Services	Senior	Soil Attribute Database Management (O) Spatial Data Management (O) Information Management (F)
Effective Presentations	Senior	Representing the Agency (F) Oral Communication (F) Interpersonal Skills (F)

Recommended Training	Career Level	Competencies
Hydric Soils for Wetland Delineation	Senior	Soil Examination & Classification (O)
		Soil Mapping & Correlation (O)
		Soil Interpretations & Land Use Guidance (O)
		Geomorphology & Hydrology (O)
Soil Science Institute	Senior	Soil Examination & Classification (O)
		Soil Mapping & Correlation (O)
		Soil Interpretations & Land Use Guidance (O)
		Geomorphology & Hydrology (O)

F = Foundational Competency; and O = Occupational Competency.

Recommended Education/Certifications – Resource Soil Scientist

These are the recommended education/certification requirements for the Resource Soil Scientist job

Table 36. Recommended Education and Certifications – Resource Soil Scientist

Education/ Certifications	Career Level
	Senior
1. Bachelor's degree in soil science or related discipline, including 30 semester hours in biological, physical or earth sciences, with 15 of these hours in subjects like soil genesis, soil chemistry, soil physics, soil microbiology and soil fertility	✓

Professional Associations – Resource Soil Scientist

These two professional associations are recommended as resources for individuals interested in the Resource Soil Scientist job.

Table 37. Professional Associations – Resource Soil Scientist

Soil Science Society of America
Regional and State Soil Science Societies

Specifics by Job – Soil Data Quality Specialist

Job Duties by Career Level – Soil Data Quality Specialist

These are three major duties associated with the individual Career Levels for the Soil Data Quality Specialist job. In general, these are slight deviations of the Overall Duties, and are intended to show the differences in responsibility between the Career Levels.

Table 38. Career Level Duties – Soil Data Quality Specialist

Job Duty	Senior
Serves as the Soil Survey Representative to an assigned area and assures the technical quality of soil survey data; coordinates the development and presentation of soil interpretations with the National Soil Survey Center (NSCC) and other technical soil scientists.	✓
Provides training and technical assistance to soil survey offices in all phases of soil survey for an assigned area.	✓
Participates in periodic technical field visits and progress reviews within an assigned area; assists other soil scientists with technical and administrative concerns, and ensures that National Cooperative Soil Survey (NCSS) standards are met.	✓

Foundational Competencies – Soil Data Quality Specialist

These are the more significant foundational competencies of the job, applicable at all Career Levels. The set of more significant foundational competencies and associated proficiency levels should differentiate the job from other jobs within and across the career groups. Proficiency Rating Definitions are included in the Appendix. This list includes the more significant competencies.

Table 39. Foundational Competencies – Soil Data Quality Specialist

Foundational Competency	Proficiency Rating
	Senior
1. Attention to Detail	3
2. Accountability	4
3. Organizing and Prioritizing Work	3
4. Representing the Agency	3
5. Resource Management	3
6. Technology Management	3
7. Organizational Awareness	3
8. Adaptability and Flexibility	3
9. Continuous Learning	3
10. Initiative	3
11. Integrity and Honesty	3
12. Stress Tolerance and Resilience	3
13. Oral Communication	3
14. Written Communication	3
15. Influence and Negotiating	3
16. Conflict Management	3
17. Interpersonal Skills	3
18. Teamwork	3
19. Creativity and Innovation	3
20. Decisive Judgment and Decision Making	3
21. Information Management	3

Foundational Competency	Proficiency Rating
	Senior
22. Problem Solving	3
23. Customer Service	3

Many of the Occupational and Leadership experiences also address the foundational competencies.

Leadership Competencies – Soil Data Quality Specialist

These are the more significant leadership competencies of the job, applicable at all Career Levels. The set of more significant leadership competencies and associated proficiency levels should differentiate the job from other jobs within and across the career groups. Proficiency Rating Definitions are included in the Appendix. This list includes the more significant competencies.

Table 40. Leadership Competencies – Soil Data Quality Specialist

Leadership Competency	Proficiency Rating
	Senior
1. Fiscal Responsibility	2
2. Assigning, Evaluating and Monitoring Work	2
3. Developing Others	2
4. Human Resource Management	2
5. Team Building	2
6. External Awareness	1
7. Political Savvy	1
8. Vision	2
9. Strategic Thinking and Action	1
10. Relationship Management	NA
11. Leveraging Diversity	2
12. Public Service Motivation	2

Recommended Leadership Experience – Soil Data Quality Specialist

These are the more significant experiences (e.g., stretch assignments), based on the Leadership Competencies, that an individual can participate in to prepare to be a viable candidate for the job.

Table 41. Recommended Leadership Experience – Soil Data Quality Specialist

Leadership Experience	Career Level	Leadership Competency
Provides guidance and quality assurance for spatial soils data	Senior	Assigning, Evaluating, and Monitoring Work
		Developing Others
		Strategic Thinking and Action
Provides guidance and quality assurance for soils database	Senior	Assigning, Evaluating, and Monitoring Work
		Developing Others
		Strategic Thinking and Action
Builds trust and relationships with internal and external customers through brainstorming activities, collaboration, assessing customer needs, identifying solutions, and strategic thinking	Senior	Political Savvy
		Vision
		Strategic Thinking and Action
		Relationship Management
		Public Service Motivation
Develops and provides training to all levels of Soil Scientists	Senior	Developing Others
		Team Building
		External Awareness
		Relationship Management
		Public Service Motivation
Writes and provides quality assurance for technical reports	Senior	Strategic Thinking and Action

Leadership Experience	Career Level	Leadership Competency
Collaborates/cooperates with MLRA soil survey leaders	Senior	Team Building
		Political Savvy
		Vision
		Strategic Thinking and Action
		Relationship Management
		Leveraging Diversity
Manages communications with diverse audience groups (knowing your audience)	Senior	External Awareness
		Political Savvy
		Strategic Thinking and Action
		Relationship Management
		Public Service Motivation

Occupational Competencies – Soil Data Quality Specialist

These are the more significant occupational competencies of the job, applicable at all Career Levels. These competencies should differentiate the job from other jobs within and across the career groups. Proficiency Rating Definitions are included in the Appendix. This list includes all of the occupational competencies associated with the Soil Data Quality Specialist job.

Table 42. Occupational Competencies – Soil Data Quality Specialist

Occupational Competency	Proficiency Rating
	Senior
1. Soil Examination & Classification	4
2. Geomorphology & Hydrology	4
3. Soil -Vegetation Relationship Identification	4
4. Soil Attribute Database Management	4
5. Spatial Data Management	4
6. Soil Mapping & Correlation	4
7. Soil Interpretations & Land Use Guidance	4

Recommended Occupational Experience – Soil Data Quality Specialist

These are the more significant experiences (e.g., stretch assignments), based on the Occupational Competencies, that an individual can participate in to prepare to be a viable candidate for the job.

Table 43. Recommended Occupational Experience – Soil Data Quality Specialist

Occupational Experience	Career Level	Occupational Competency
Provides quality assurance of spatial and tabular soil data	Senior	Soil Attribute Database Management
		Spatial Data Management
Coordinates projects on large or multiple Major Land Resource Areas	Senior	Soil Examination & Classification
		Soil Mapping & Correlation
Provides expertise in soil taxonomy for the region	Senior	Soil Examination & Classification
		Geomorphology & Hydrology
		Soil – Vegetation Relationship Identification
		Soil Mapping & Correlation
		Soil Interpretations & Land Use Guidance
Develops queries and reports for Soil Survey offices	Senior	Soil Examination & Classification
		Soil Attribute Database Management
		Spatial Data Management
		Soil Mapping & Correlation
		Soil Interpretations & Land Use Guidance
Manages permissions for access to the soil database	Senior	Soil Attribute Database Management
Provides training in population and management of the soil database	Senior	Soil Attribute Database Management

Occupational Experience	Career Level	Occupational Competency
Assists in soil sampling projects	Senior	Soil Examination & Classification
		Soil Mapping & Correlation
Collaborates with State Soil Scientists	Senior	Soil Examination & Classification
		Geomorphology & Hydrology
		Soil – Vegetation Relationship Identification
		Soil Mapping & Correlation
		Soil Interpretations & Land Use Guidance

Recommended Trainings – Soil Data Quality Specialist

These are the recommended trainings for individuals working to become a Soil Data Quality Specialist. The set of recommended trainings and associated competencies should provide specific opportunities for individuals to better prepare themselves for the Soil Data Quality Specialist job. Competency Definitions are included in the appendix.

Table 44. Recommended Trainings – Soil Data Quality Specialist

Recommended Training	Career Level	Competencies
Not Applicable		

Recommended Education/Certifications – Soil Data Quality Specialist

These are the recommended education/certification requirements for the Soil Data Quality Specialist job

Table 45. Recommended Education and Certifications – Soil Data Quality Specialist

Education/ Certifications	Career Level
	Senior
1. Bachelor's degree in soil science or related discipline, including 30 semester hours in biological, physical or earth sciences, with 15 of these hours in subjects like soil genesis, soil chemistry, soil physics and soil fertility	✓

Professional Associations – Soil Data Quality Specialist

These two professional associations are recommended as resources for individuals interested in the Soil Data Quality Specialist job.

Table 46. Professional Associations – Soil Data Quality Specialist

Soil Science Society of America
Regional and State Soil Science Societies

Specifics by Job – MLRA Soil Survey Leader

Job Duties by Career Level – MLRA Soil Survey Leader

These are three major duties associated with the individual Career Levels for the MLRA Soil Survey Leader job. In general, these are slight deviations of the Overall Duties, and are intended to show the differences in responsibility between the Career Levels.

Table 47. Career Level Duties – MLRA Soil Survey Leader

Job Duty	Supervisor
Provides leadership, direction, and technical guidance to staff within the assigned soil survey area; controls the technical quality of all phases of soil survey area work including collection, description, classification, correlation, investigation, and interpretation of all soil data within the assigned soil survey MLRA region.	✓
Develops soil-landscape predictive models and uses soil-landscape relationships to develop and evaluate map units and mapping legends and systematically map and describe how soils occur in the landscape; examines soils geospatial information to identify areas where soil map units and landscapes are not correctly associated.	✓
Develops and manages the National Soil Information Systems (NASIS) according to National Cooperative Soil Survey (NCSS) standards; provides leadership and management of soil data join re-correlations.	✓

Foundational Competencies – MLRA Soil Survey Leader

These are the more significant foundational competencies of the job, applicable at all Career Levels. The set of more significant foundational competencies and associated proficiency levels should differentiate the job from other jobs within and across the career groups. Proficiency Rating Definitions are included in the Appendix. This list includes the more significant competencies.

Table 48. Foundational Competencies – MLRA Soil Survey Leader

Foundational Competency	Proficiency Rating
	Supervisor
1. Attention to Detail	3
2. Accountability	4
3. Organizing and Prioritizing Work	3
4. Representing the Agency	3
5. Resource Management	3
6. Technology Management	3
7. Organizational Awareness	3
8. Adaptability and Flexibility	3
9. Continuous Learning	3
10. Initiative	3
11. Integrity and Honesty	3
12. Stress Tolerance and Resilience	3
13. Oral Communication	3
14. Written Communication	3
15. Influence and Negotiating	3
16. Conflict Management	3
17. Interpersonal Skills	3
18. Teamwork	3
19. Creativity and Innovation	3
20. Decisive Judgment and Decision Making	3
21. Information Management	3

Foundational Competency	Proficiency Rating
	Supervisor
22. Problem Solving	3
23. Customer Service	3

Many of the Occupational and Leadership experiences also address the foundational competencies.

Leadership Competencies – MLRA Soil Survey Leader

These are the more significant leadership competencies of the job, applicable at all Career Levels. The set of more significant leadership competencies and associated proficiency levels should differentiate the job from other jobs within and across the career groups. Proficiency Rating Definitions are included in the Appendix. This list includes the more significant competencies.

Table 49. Leadership Competencies – MLRA Soil Survey Leader

Leadership Competency	Proficiency Rating
	Supervisor
1. Fiscal Responsibility	2
2. Assigning, Evaluating and Monitoring Work	2
3. Developing Others	2
4. Human Resource Management	2
5. Team Building	2
6. External Awareness	1
7. Political Savvy	1
8. Vision	2
9. Strategic Thinking and Action	1
10. Relationship Management	NA
11. Leveraging Diversity	2
12. Public Service Motivation	2

Recommended Leadership Experience – MLRA Soil Survey Leader

These are the more significant experiences (e.g., stretch assignments), based on the Leadership Competencies, that an individual can participate in to prepare to be a viable candidate for the job.

Table 50. Recommended Leadership Experience – MLRA Soil Survey Leader

Leadership Experience	Career Level	Leadership Competency
Develops and communicates the vision for projects and promotes cooperation and team development	Supervisor	Developing Others
		Team Building
		Vision
		Strategic Thinking and Action
		Relationship Management
		Leveraging Diversity
Develops and monitors performance plans and address performance issues	Supervisor	Assigning, Evaluating, and Monitoring Work
		Human Resource Management
		Developing Others
		Leveraging Diversity
Develops and provides training to Soil Scientists and related staff in other disciplines	Supervisor	Developing Others
		Team Building
		External Awareness
		Relationship Management
		Public Service Motivation
Assigns, monitors, and evaluates work to Soil Scientists and related staff in other disciplines	Supervisor	Assigning, Evaluating, and Monitoring Work
		Human Resource Management
		Developing Others
		Leveraging Diversity

Leadership Experience	Career Level	Leadership Competency
Develops and conducts workload analysis in order to establish annual and long-range plans	Supervisor	Human Resource Management
		Assigning, Evaluating, and Monitoring Work
		Strategic Thinking and Action
Writes and provides quality control for technical reports	Supervisor	Strategic Thinking and Action
Makes presentations to internal and external groups	Supervisor	External Awareness
		Relationship Management
		Public Service Motivation
Coaches and serves as a role model to Soil Scientists and related staff in other disciplines	Supervisor	Assigning, Evaluating, and Monitoring Work
		Developing Others
		Leveraging Diversity
Develops and communicates the vision for responsible geographic area and lead cooperation and team development	Supervisor	Team Building
		External Awareness
		Political Savvy
		Vision
		Strategic Thinking and Action
		Relationship Management
Builds trust and relationships with internal and external customers through brainstorming activities, collaboration, assessing customer needs, identifying solutions, and strategic thinking	Supervisor	Public Service Motivation
		Political Savvy
		Vision
		Strategic Thinking and Action
		Relationship Management
		Public Service Motivation

Leadership Experience	Career Level	Leadership Competency
Manages communications with diverse audience groups (knowing your audience)	Supervisor	External Awareness
		Political Savvy
		Strategic Thinking and Action
		Relationship Management
		Public Service Motivation
Develops business plans including annual goals and budget for travel, training, equipment, supplies (for responsible geographic area)	Supervisor	Fiscal Responsibility
		Political Savvy
		Vision
		Strategic Thinking and Action

Occupational Competencies – MLRA Soil Survey Leader

These are the more significant occupational competencies of the job, applicable at all Career Levels. These competencies should differentiate the job from other jobs within and across the career groups. Proficiency Rating Definitions are included in the Appendix. This list includes all of the occupational competencies associated with the MLRA Soil Survey Leader job.

Table 51. Occupational Competencies – MLRA Soil Survey Leader

Occupational Competency	Proficiency Rating
	Supervisor
1. Soil Examination & Classification	4
2. Geomorphology & Hydrology	4
3. Soil -Vegetation Relationship Identification	4
4. Soil Attribute Database Management	4
5. Spatial Data Management	4
6. Soil Mapping & Correlation	4
7. Soil Interpretations & Land Use Guidance	4

Recommended Occupational Experience – MLRA Soil Survey Leader

These are the more significant experiences (e.g., stretch assignments), based on the Occupational Competencies, that an individual can participate in to prepare to be a viable candidate for the job.

Table 52. Recommended Occupational Experience – MLRA Soil Survey Leader

Occupational Experience	Career Level	Occupational Competency
Provides quality control of spatial and tabular soil data	Supervisor	Soil Attribute Database Management Spatial Data Management
Manages projects on large or multiple Major Land Resource Areas	Supervisor	Soil Examination & Classification Soil Mapping & Correlation
Provides expertise in soil taxonomy for the area	Supervisor	Soil Examination & Classification Geomorphology & Hydrology Soil – Vegetation Relationship Identification Soil Mapping & Correlation Soil Interpretation & Land Use Guidance
Provides technical soil services	Supervisor	Soil Examination & Classification Geomorphology & Hydrology Soil – Vegetation Relationship Identification Soil Mapping & Correlation Soil Interpretation & Land Use Guidance
Evaluates new and existing mapping and soils data	Supervisor	Soil Examination & Classification Soil Mapping & Correlation
Provides expertise and quality control to ecological site soil-vegetative relationships	Supervisor	Soil – Vegetation Relationship Identification

Occupational Experience	Career Level	Occupational Competency
Develops and implements soil sampling projects	Supervisor	Soil Examination & Classification
		Soil Mapping & Correlation
		Soil Interpretation & Land Use Guidance

Recommended Trainings – MLRA Soil Survey Leader

These are the recommended trainings for individuals working to become a MLRA Soil Survey Leader j. The set of recommended trainings and associated competencies should provide specific opportunities for individuals to better prepare themselves for the MLRA Soil Survey Leader job. Competency Definitions are included in the appendix.

Table 53. Recommended Trainings – MLRA Soil Survey Leader

Recommended Training	Career Level	Competencies
Supervising for Excellence	Supervisor	Developing Others (L)
		Team Building (L)
		Human Resource Management (L)
		Strategic Thinking & Action (L)
		Relationship Management (L)
		Leveraging Diversity (L)
		Resource Management (F)
		Influence and Negotiating (F)
		Conflict Management (F)
		Interpersonal Skills (F)
		Problem Solving (F)
Effective Presentations	Supervisor	Representing the Agency (F)
		Oral Communication (F)
		Interpersonal Skills (F)

Recommended Training	Career Level	Competencies
Soil Science Institute	Supervisor	Soil Examination & Classification (O)
		Soil Mapping & Correlation (O)
		Soil Interpretations & Land Use Guidance (O)
		Geomorphology & Hydrology (O)
Management of Soil Surveys by MLRA	Supervisor	Soil Examination & Classification (O)
		Soil Mapping & Correlation (O)
		Soil Interpretations & Land Use Guidance (O)
		Soil Attribute Database Management (O)
		Information Management (F)
Reg. IV Wetlands Corps of Engineers	Supervisor	Soil Examination & Classification (O)
		Geomorphology & Hydrology (O)
		Soil – Vegetation Relationship Identification (O)
		Soil Mapping & Correlation (O)
		Soil Interpretations & Land Use Guidance (O)
		Information Management (F)
Advanced Hydric Soils	Supervisor	Soil Examination & Classification (O)
		Soil Mapping & Correlation (O)
		Soil Interpretations & Land Use Guidance (O)
		Geomorphology & Hydrology (O)
Soil Geomorphic Institute	Supervisor	Soil Examination & Classification (O)
		Soil Mapping & Correlation (O)
		Soil Interpretations & Land Use Guidance (O)
		Geomorphology & Hydrology (O)
NASIS - Designing and Developing Soil Interpretations	Supervisor	Soil Examination & Classification (O)
		Soil Mapping & Correlation (O)
		Soil Interpretations & Land Use Guidance (O)
		Soil Attribute Database Management (O)
		Spatial Data Management (O)
		Information Management (F)

Recommended Training	Career Level	Competencies
NASIS - Query Writing	Supervisor	Soil Examination & Classification (O)
		Soil Mapping & Correlation (O)
		Written Communication (F)

F = Foundational Competency; L=Leadership Competency; and O = Occupational Competency.

Recommended Education/Certifications – MLRA Soil Survey Leader

These are the recommended education/certification requirements for the MLRA Soil Survey Leader job

Table 54. Recommended Education and Certifications – MLRA Soil Survey Leader

Education/ Certifications	Career Level
	Supervisor
Not Applicable	

Professional Associations – MLRA Soil Survey Leader

These two professional associations are recommended as resources for individuals interested in the MLRA Soil Survey Leader job.

Table 55. Professional Associations – MLRA Soil Survey Leader

Soil Science Society of America
Regional and State Soil Science Societies

Specifics by Job – Soil Scientist – Technical Specialist

Job Duties by Career Level – Soil Scientist – Technical Specialist

These are three major duties associated with the individual Career Levels for the Soil Scientist – Technical Specialist job. In general, these are slight deviations of the Overall Duties, intended to show the differences in responsibility between the Career Levels.

Table 56. Career Level Duties – Soil Scientist – Technical Specialist

Job Duty	Senior
Develops and maintains the Soil Taxonomy and the Keys to Soil Taxonomy, along with integrating soil classification into the National Soil Survey Handbook and the Soil Survey Manual.	✓
Contributes to the development of national policies, standards, and criteria for soil classification as a soil science expert.	✓
Assists in developing new and innovative policy and guidelines for the use of soil survey data to enhance National Cooperative Soil Survey (NCSS) and international Soil Taxonomy.	✓

Foundational Competencies – Soil Scientist – Technical Specialist

These are the more significant foundational competencies of the job, applicable at all Career Levels. The set of more significant foundational competencies and associated proficiency levels should differentiate the job from other jobs within and across the career groups. Proficiency Rating Definitions are included in the Appendix. This list includes the more significant competencies.

Table 57. Foundational Competencies – Soil Scientist – Technical Specialist

Foundational Competency	Proficiency Rating
	Senior
1. Attention to Detail	4
2. Accountability	4
3. Organizing and Prioritizing Work	4
4. Representing the Agency	4
5. Resource Management	4
6. Technology Management	4
7. Organizational Awareness	4
8. Adaptability and Flexibility	4
9. Continuous Learning	4
10. Initiative	4
11. Integrity and Honesty	4
12. Stress Tolerance and Resilience	4
13. Oral Communication	4
14. Written Communication	4
15. Influence and Negotiating	4
16. Conflict Management	4
17. Interpersonal Skills	4
18. Teamwork	4
19. Creativity and Innovation	4
20. Decisive Judgment and Decision Making	4
21. Information Management	4

Foundational Competency	Proficiency Rating
	Senior
22. Problem Solving	4
23. Customer Service	4

Many of the Occupational and Leadership experiences also address the foundational competencies.

Leadership Competencies – Soil Scientist – Technical Specialist

These are the more significant leadership competencies of the job, applicable at all Career Levels. The set of more significant leadership competencies and associated proficiency levels should differentiate the job from other jobs within and across the career groups. Proficiency Rating Definitions are included in the Appendix. This list includes the more significant competencies.

Table 58. Leadership Competencies – Soil Scientist – Technical Specialist

Leadership Competency	Proficiency Rating
	Senior
1. Fiscal Responsibility	3
2. Assigning, Evaluating and Monitoring Work	3
3. Developing Others	4
4. Human Resource Management	3
5. Team Building	3
6. External Awareness	3
7. Political Savvy	2
8. Vision	3
9. Strategic Thinking and Action	3
10. Relationship Management	NA
11. Leveraging Diversity	3
12. Public Service Motivation	3

Recommended Leadership Experience – Soil Scientist – Technical Specialist

These are the more significant experiences (e.g., stretch assignments), based on the Leadership Competencies, that an individual can participate in to prepare to be a viable candidate for the job.

Table 59. Recommended Leadership Experience – Soil Scientist – Technical Specialist

Leadership Experience	Career Level	Leadership Competency
Develops and provides training to all levels of Soil Scientists	Senior	Developing Others
		Team Building
		External Awareness
		Relationship Management
		Public Service Motivation
Writes technical reports and develops technical protocols	Senior	Strategic Thinking and Action
Manages communications with diverse audience groups including international audiences/cultures	Senior	External Awareness
		Political Savvy
		Strategic Thinking and Action
		Relationship Management
		Public Service Motivation

Leadership Experience	Career Level	Leadership Competency
Maintains external awareness of policy, legislation, and science to address emerging agency issues	Senior	External Awareness
Leads innovation in area of technical expertise	Senior	Strategic Thinking and Action
Provides recommendations including risks and benefits	Senior	External Awareness
Leads field investigations	Senior	Relationship Management Strategic Thinking and Action

Occupational Competencies – Soil Scientist – Technical Specialist

These are the more significant occupational competencies of the job, applicable at all Career Levels. These competencies should differentiate the job from other jobs within and across the career groups. Proficiency Rating Definitions are included in the Appendix. This list includes all occupational competencies associated with the Soil Scientist – Technical Specialist job.

Table 60. Occupational Competencies – Soil Scientist – Technical Specialist

Occupational Competency	Proficiency Rating
	Senior
1. Soil Examination & Classification	5
2. Geomorphology & Hydrology	5
3. Soil -Vegetation Relationship Identification	5
4. Soil Attribute Database Management	4
5. Spatial Data Management	4
6. Soil Mapping & Correlation	5
7. Soil Interpretations & Land Use Guidance	5

Recommended Occupational Experience – Soil Scientist – Technical Specialist

These are the more significant experiences (e.g., stretch assignments), based on the Occupational Competencies, that an individual can participate in to prepare to be a viable candidate for the job.

Table 61. Recommended Occupational Experience – Soil Scientist – Technical Specialist

Occupational Experience	Career Level	Occupational Competency
Provides national subject matter expertise in area of specialization (e.g., soil taxonomy, soil database, GIS, (soil) interpretations, geomorphology, developing curriculum, ground penetrating radar (GPR) and electromagnetic imaging (EMI) technology, soil investigations, laboratory procedures for analyzing soil samples and interpreting results and laboratory analysis)	Senior	Soil Examination & Classification
		Geomorphology & Hydrology
		Soil – Vegetation Relationship Identification
		Soil Mapping & Correlation
		Soil Interpretation & Land Use Guidance
		Spatial Data Management
		Soil Mapping & Correlation

Recommended Trainings – Soil Scientist – Technical Specialist

These are the recommended trainings for individuals working to become a Soil Scientist – Technical Specialist. The set of recommended trainings and associated competencies should provide specific opportunities for individuals to better prepare themselves for the Soil Scientist – Technical Specialist job. Competency Definitions are included in the appendix.

Table 62. Recommended Trainings – Soil Scientist – Technical Specialist

Recommended Training	Career Level	Competencies
Not Applicable		

Recommended Education/Certifications – Soil Scientist – Technical Specialist

These are the recommended education/certification requirements for the Soil Scientist – Technical Specialist job

Table 63. Recommended Education and Certifications – Soil Scientist – Technical Specialist

Education/ Certifications	Career Level
	Senior
1. Bachelor's degree in soil science or related discipline, including 30 semester hours in biological, physical or earth sciences, with 15 of these hours in subjects like soil genesis, soil chemistry, soil physics, soil microbiology and soil fertility	✓

Professional Associations – Soil Scientist – Technical Specialist

These two professional associations are recommended as resources for individuals interested in the Soil Scientist – Technical Specialist job.

Table 64. Professional Associations – Soil Scientist – Technical Specialist

Soil Science Society of America
Regional and State Soil Science Societies

Specifics by Job – Senior Regional Soil Scientist

Job Duties by Career Level – Senior Regional Soil Scientist

These are three major duties associated with the individual Career Levels for the Senior Regional Soil Scientist job. In general, these are slight deviations of the Overall Duties, and are intended to show the differences in responsibility between the Career Levels.

Table 65. Career Level Duties – Senior Regional Soil Scientist

Job Duty	Senior
Serves as the technical expert for all phases of the soil survey program; works with Soil Survey Office staff, State Soil Scientists, other Soil Survey Regional staff, and other Federal agencies to develop and monitor a five year work plan for the Soil Survey Region.	✓
Assists the Soil Survey Regional Director in monitoring soil survey production across the region and working to improve productivity; coordinates soil investigations, special projects, and geomorphic assistance within the region.	✓
Develops and recommends policy changes and guidelines for soil survey technical functions; develops and issues guidance for applying standards and interpretive guides.	✓

Foundational Competencies – Senior Regional Soil Scientist

These are the more significant foundational competencies of the job, applicable at all Career Levels. The set of more significant foundational competencies and associated proficiency levels should differentiate the job from other jobs within and across the career groups. Proficiency Rating Definitions are included in the Appendix. This list includes the more significant competencies.

Table 66. Foundational Competencies – Senior Regional Soil Scientist

Foundational Competency	Proficiency Rating
	Senior
1. Attention to Detail	3
2. Accountability	3
3. Organizing and Prioritizing Work	4
4. Representing the Agency	4
5. Resource Management	4
6. Technology Management	4
7. Organizational Awareness	3
8. Adaptability and Flexibility	3
9. Continuous Learning	3
10. Initiative	4
11. Integrity and Honesty	4
12. Stress Tolerance and Resilience	3
13. Oral Communication	3
14. Written Communication	4
15. Influence and Negotiating	3
16. Conflict Management	4
17. Interpersonal Skills	3
18. Teamwork	3
19. Creativity and Innovation	3
20. Decisive Judgment and Decision Making	4
21. Information Management	4

Foundational Competency	Proficiency Rating
	Senior
22. Problem Solving	4
23. Customer Service	4

Many of the Occupational and Leadership experiences also address the foundational competencies.

Leadership Competencies – Senior Regional Soil Scientist

These are the more significant leadership competencies of the job, applicable at all Career Levels. The set of more significant leadership competencies and associated proficiency levels should differentiate the job from other jobs within and across the career groups. Proficiency Rating Definitions are included in the Appendix. This list includes the more significant competencies.

Table 67. Leadership Competencies – Senior Regional Soil Scientist

Leadership Competency	Proficiency Rating
	Senior
1. Fiscal Responsibility	3
2. Assigning, Evaluating and Monitoring Work	3
3. Developing Others	4
4. Human Resource Management	3
5. Team Building	3
6. External Awareness	2
7. Political Savvy	2
8. Vision	3
9. Strategic Thinking and Action	3
10. Relationship Management	NA
11. Leveraging Diversity	3
12. Public Service Motivation	2

Recommended Leadership Experience – Senior Regional Soil Scientist

These are the more significant experiences (e.g., stretch assignments), based on the Leadership Competencies, that an individual can participate in to prepare to be a viable candidate for the job.

Table 68. Recommended Leadership Experience – Senior Regional Soil Scientist

Leadership Experience	Career Level	Leadership Competency
Provides guidance and quality assurance for spatial soils data	Senior	Assigning, Evaluating, and Monitoring Work
		Developing Others
		Strategic Thinking and Action
Provides guidance and quality assurance for soils database	Senior	Assigning, Evaluating, and Monitoring Work
		Developing Others
		Strategic Thinking and Action
Builds trust and relationships with internal and external customers through brainstorming activities, collaboration, assessing customer needs, identifying solutions, and strategic thinking	Senior	Political Savvy
		Vision
		Strategic Thinking and Action
		Relationship Management
		Public Service Motivation
Develops and provides training to field Soil Scientists	Senior	Developing Others
		Team Building
		External Awareness
		Relationship Management
		Public Service Motivation
Writes and provides quality assurance for technical reports	Senior	Strategic Thinking and Action

Leadership Experience	Career Level	Leadership Competency
Manages communications with diverse audience groups (knowing your audience)	Senior	External Awareness
		Political Savvy
		Strategic Thinking and Action
		Relationship Management
		Public Service Motivation
Maintains external awareness of policy, legislation, and science to address emerging agency issues	Senior	External Awareness
Leads innovation in area of technical expertise	Senior	Strategic Thinking and Action
Leads field investigations	Senior	Relationship Management
		Strategic Thinking and Action
Assists in developing, communicating, modeling, and implementing the vision for the region	Senior	Vision
Assists in the development of the regional business plan including budgets, staffing, and goals	Senior	Fiscal Responsibility
		Political Savvy
		Vision
		Strategic Thinking and Action
Manages conflicts with regional stakeholders	Senior	Human Resource Management
		Relationship Management

Occupational Competencies – Senior Regional Soil Scientist

These are the more significant occupational competencies of the job, applicable at all Career Levels. These competencies should differentiate the job from other jobs within and across the career groups. Proficiency Rating Definitions are included in the Appendix. This list includes all of the occupational competencies associated with the Senior Regional Soil Scientist job.

Table 69. Occupational Competencies – Senior Regional Soil Scientist

Occupational Competency	Proficiency Rating
	Senior
1. Soil Examination & Classification	5
2. Geomorphology & Hydrology	4
3. Soil -Vegetation Relationship Identification	5
4. Soil Attribute Database Management	4
5. Spatial Data Management	4
6. Soil Mapping & Correlation	5
7. Soil Interpretations & Land Use Guidance	5

Recommended Occupational Experience – Senior Regional Soil Scientist

These are the more significant experiences (e.g., stretch assignments), based on the Occupational Competencies, that an individual can participate in to prepare to be a viable candidate for the job.

Table 70. Recommended Occupational Experience – Senior Regional Soil Scientist

Occupational Experience	Career Level	Occupational Competency
Makes revisions to Official Series Descriptions (OSD)	Senior	Soil Examination & Classification
		Geomorphology & Hydrology
		Soil – Vegetation Relationship Identification
		Soil Mapping & Correlation
		Soil Interpretation & Land Use Guidance
		Soil Attribute Database Management
		Spatial Data Management
Coordinates soil sampling projects	Senior	Soil Examination & Classification
		Soil Mapping & Correlation
		Soil Interpretation & Land Use Guidance
Provides quality assurance of spatial and tabular soil data	Senior	Strategic Thinking and Action
Approves soil correlations	Senior	Soil Mapping & Correlation
Provides expertise in soil taxonomy for the region including proposed revisions to soil taxonomy	Senior	Soil Examination & Classification
		Geomorphology & Hydrology
		Soil – Vegetation Relationship Identification
		Soil Mapping & Correlation
		Soil Interpretation & Land Use Guidance

Occupational Experience	Career Level	Occupational Competency
Serves as liaison to Soil Survey technical leaders and Soil Survey offices	Senior	Soil Examination & Classification
		Geomorphology & Hydrology
		Soil – Vegetation Relationship Identification
		Soil Mapping & Correlation
		Soil Interpretation & Land Use Guidance
		Soil Attribute Database Management
		Spatial Data Management
Collaborates with State Soil Scientists	Senior	Soil Examination & Classification
		Geomorphology & Hydrology
		Soil – Vegetation Relationship Identification
		Soil Mapping & Correlation
		Soil Interpretation & Land Use Guidance
		Soil Attribute Database Management
		Spatial Data Management
Manages integrity of soil database for the region	Senior	Soil Attribute Database Management

Recommended Trainings – Senior Regional Soil Scientist

These are the recommended trainings for individuals working to become a Senior Regional Soil Scientist. The set of recommended trainings and associated competencies should provide specific opportunities for individuals to better prepare themselves for the Senior Regional Soil Scientist job. Competency Definitions are included in the appendix.

Table 71. Recommended Trainings – Senior Regional Soil Scientist

Recommended Training	Career Level	Competencies
Not Applicable		

Recommended Education/Certifications – Senior Regional Soil Scientist

These are the recommended education/certification requirements for the Senior Regional Soil Scientist job

Table 72. Recommended Education and Certifications – Senior Regional Soil Scientist

Education/ Certifications	Career Level
	Senior
1. Bachelor's degree in soil science or related discipline, including 30 semester hours in biological, physical or earth sciences, with 15 of these hours in subjects like soil genesis, soil chemistry, soil physics, soil microbiology and soil fertility	✓

Professional Associations – Senior Regional Soil Scientist

These two professional associations are recommended as resources for individuals interested in the Senior Regional Soil Scientist job.

Table 73. Professional Associations – Senior Regional Soil Scientist

Soil Science Society of America
Regional and State Soil Science Societies

Specifics by Job – State Soil Scientist

Job Duties by Career Level – State Soil Scientist

These are three major duties associated with the individual Career Levels for the State Soil Scientist job. In general, these are slight deviations of the Overall Duties, and are intended to show the differences in responsibility between the Career Levels.

Table 74. Career Level Duties – State Soil Scientist

Job Duty	Manager
Provides leadership for developing, managing, and directing a comprehensive and integrated technical soil services programs for the state.	✓
Serves as a state liaison with National Cooperative Soil Survey (NCSS) cooperators.	✓
Provides supervision to members of the State Soils Program staff and/or Resource Soil Scientists.	✓

Foundational Competencies – State Soil Scientist

These are the more significant foundational competencies of the job, applicable at all Career Levels. The set of more significant foundational competencies and associated proficiency levels should differentiate the job from other jobs within and across the career groups. Proficiency Rating Definitions are included in the Appendix. This list includes the more significant competencies.

Table 75. Foundational Competencies – State Soil Scientist

Foundational Competency	Proficiency Rating
	Manager
1. Attention to Detail	4
2. Accountability	4
3. Organizing and Prioritizing Work	4
4. Representing the Agency	3
5. Resource Management	3
6. Technology Management	3
7. Organizational Awareness	3
8. Adaptability and Flexibility	3
9. Continuous Learning	4
10. Initiative	4
11. Integrity and Honesty	4
12. Stress Tolerance and Resilience	4
13. Oral Communication	3
14. Written Communication	3
15. Influence and Negotiating	3
16. Conflict Management	4
17. Interpersonal Skills	4
18. Teamwork	3
19. Creativity and Innovation	3
20. Decisive Judgment and Decision Making	4
21. Information Management	3

Foundational Competency	Proficiency Rating
	Manager
22. Problem Solving	4
23. Customer Service	3

Many of the Occupational and Leadership experiences also address the foundational competencies.

Leadership Competencies – State Soil Scientist

These are the more significant leadership competencies of the job, applicable at all Career Levels. The set of more significant leadership competencies and associated proficiency levels should differentiate the job from other jobs within and across the career groups. Proficiency Rating Definitions are included in the Appendix. This list includes the more significant competencies.

Table 76. Leadership Competencies – State Soil Scientist

Leadership Competency	Proficiency Rating
	Manager
1. Fiscal Responsibility	3
2. Assigning, Evaluating and Monitoring Work	3
3. Developing Others	4
4. Human Resource Management	3
5. Team Building	3
6. External Awareness	2
7. Political Savvy	2
8. Vision	3
9. Strategic Thinking and Action	3
10. Relationship Management	NA
11. Leveraging Diversity	3
12. Public Service Motivation	2

Recommended Leadership Experience – State Soil Scientist

These are the more significant experiences (e.g., stretch assignments), based on the Leadership Competencies, that an individual can participate in to prepare to be a viable candidate for the job.

Table 77. Recommended Leadership Experience – State Soil Scientist

Leadership Experience	Career Level	Leadership Competency
Provides on-the-job training to NRCS staff and external partners	Manager	Developing Others
		Assigning, Evaluating, and Monitoring Work
		Relationship Management
		Leveraging Diversity
		Public Service Motivation
Plans, prioritizes, and organizes work	Manager	Assigning, Evaluating, and Monitoring Work
Builds trust and relationships with internal and external customers through brainstorming activities, collaboration, assessing customer needs, identifying solutions, and strategic thinking	Manager	Political Savvy
		Vision
		Strategic Thinking and Action
		Relationship Management
		Public Service Motivation
Writes technical reports	Manager	Strategic Thinking and Action
Makes presentations to internal and external groups	Manager	External Awareness
		Relationship Management
		Public Service Motivation
Coaches and serves as a role model for NRCS staff	Manager	Assigning, Evaluating, and Monitoring Work
		Developing Others
		Leveraging Diversity

Leadership Experience	Career Level	Leadership Competency
Manages communications with diverse audience groups	Manager	External Awareness
		Political Savvy
		Strategic Thinking and Action
		Relationship Management
		Public Service Motivation
Establishes and fosters long-term relationships with customers	Manager	External Awareness
		Political Savvy
		Strategic Thinking and Action
		Relationship Management
		Public Service Motivation
Manages contentious situations with customer and identify situations where escalation is needed	Manager	Human Resource Management
		Political Savvy
		Relationship Management
Develops and monitors performance plans and addresses performance issues and conduct problems as warranted	Manager	Assigning, Evaluating, and Monitoring Work
		Human Resource Management
		Developing Others
		Leveraging Diversity
Collaborates/cooperates with regional directors	Manager	Team Building
		Political Savvy
		Vision
		Strategic Thinking and Action
		Relationship Management
		Leveraging Diversity
Fosters a positive team atmosphere	Manager	Team Building
Ensures workforce diversity through recruitment and retention	Manager	Leveraging Diversity

Leadership Experience	Career Level	Leadership Competency
Recruits, selects, and retains staff from within and outside the agency for Soil Scientists and other technical positions	Manager	Human Resource Management
Develops, communicates, models, and promotes a vision for the state	Manager	Vision
Serves as the program manager for State Conservationists and delivery of soil survey program and technical soil services to internal and external customers	Manager	External Awareness

Occupational Competencies – State Soil Scientist

These are the more significant occupational competencies of the job, applicable at all Career Levels. These competencies should differentiate the job from other jobs within and across the career groups. Proficiency Rating Definitions are included in the Appendix. This list includes all of the occupational competencies associated with the State Soil Scientist job.

Table 78. Occupational Competencies – State Soil Scientist

Occupational Competency	Proficiency Rating
	Manager
1. Soil Examination & Classification	5
2. Geomorphology & Hydrology	4
3. Soil -Vegetation Relationship Identification	5
4. Soil Attribute Database Management	4
5. Spatial Data Management	4
6. Soil Mapping & Correlation	5
7. Soil Interpretations & Land Use Guidance	5

Recommended Occupational Experience – State Soil Scientist

These are the more significant experiences (e.g., stretch assignments), based on the Occupational Competencies, that an individual can participate in to prepare to be a viable candidate for the job.

Table 79. Recommended Occupational Experience – State Soil Scientist

Occupational Experience	Career Level	Occupational Competency
Provides direct support to field offices for technical soil services	Manager	Soil Examination & Classification
		Geomorphology & Hydrology
		Soil – Vegetation Relationship Identification
		Soil Mapping & Correlation
		Soil Interpretations & Land Use Guidance
Evaluates Farm Bill program assessments and eligibility	Manager	Soil Interpretations & Land Use Guidance
Provides expertise in conservation compliance	Manager	Soil Examination & Classification
		Soil Mapping & Correlation
		Soil Interpretations & Land Use Guidance
Directs training to field offices, general public, and other federal and state agencies	Manager	Developing Others
		Team Building
		External Awareness
		Relationship Management
		Public Service Motivation
Performs and documents onsite investigations	Manager	Soil Examination & Classification
		Soil Mapping & Correlation
		Soil Interpretations & Land Use Guidance

Occupational Experience	Career Level	Occupational Competency
Coordinates and conducts training on soil health	Manager	Soil Examination & Classification
		Soil Mapping & Correlation
		Soil Interpretations & Land Use Guidance
Creates maps using GIS technology	Manager	Spatial Data Management
		Soil Attribute Database Management
Coordinates National Resources Inventory (NRI)	Manager	Spatial Data Management
		Soil Attribute Database Management
Develops and maintains a list of important farmlands, hydric soils, highly erodible lands	Manager	Soil Examination & Classification
		Soil Mapping & Correlation
		Soil Interpretations & Land Use Guidance
		Geomorphology & Hydrology
Works collaboratively with Soil Survey offices	Manager	Soil Examination & Classification
		Geomorphology & Hydrology
		Soil – Vegetation Relationship Identification
		Soil Mapping & Correlation
		Soil Interpretations & Land Use Guidance
Serves as the state representative of the National Cooperative Soil Survey	Manager	Soil Examination & Classification
		Soil Mapping & Correlation
		Soil Interpretations & Land Use Guidance
Evaluates, certifies, and uploads data into the soil data warehouse	Manager	Soil Attribute Database Management

Occupational Experience	Career Level	Occupational Competency
Provides soil expertise to other federal agencies	Manager	Soil Examination & Classification
		Geomorphology & Hydrology
		Soil – Vegetation Relationship Identification
		Soil Mapping & Correlation
		Soil Interpretations & Land Use Guidance
Maintains field office technical guide	Manager	Soil Examination & Classification
		Geomorphology & Hydrology
		Soil – Vegetation Relationship Identification
		Soil Mapping & Correlation
		Soil Interpretations & Land Use Guidance

Recommended Trainings – State Soil Scientist

These are the recommended trainings for individuals working to become a State Soil Scientist. The set of recommended trainings and associated competencies should provide specific opportunities for individuals to better prepare themselves for the State Soil Scientist job. Competency Definitions are included in the appendix.

Table 80. Recommended Trainings – State Soil Scientist

Recommended Training	Career Level	Competencies
Capitol Hill Workshop	Manager	Developing Others (L)
		Team Building (L)
		Strategic Thinking & Action (L)
		Relationship Management (L)
		Public Service Motivation (L)
		Vision (L)
		External Awareness (L)
Soil Survey Division - Conservation Engineering Division Leadership Workshop	Manager	Soil Examination & Classification (O)
		Geomorphology & Hydrology (O)
		Soil – Vegetation Relationship Identification (O)
		Soil Mapping & Correlation (O)
		Soil Interpretations & Land Use Guidance (O)

F = Foundational Competency; L=Leadership Competency; and O = Occupational Competency.

Recommended Education/Certifications – State Soil Scientist

These are the recommended education/certification requirements for the State Soil Scientist job

Table 81. Recommended Education and Certifications – State Soil Scientist

Education/ Certifications	Career Level
	Senior
Not Applicable	

Professional Associations – State Soil Scientist

These two professional associations are recommended as resources for individuals interested in the State Soil Scientist job.

Table 82. Professional Associations – State Soil Scientist

Soil Science Society of America
Regional and State Soil Science Societies

Specifics by Job – Soil Survey Regional Director

Job Duties by Career Level – Soil Survey Regional Director

These are three major duties associated with the individual Career Levels for the Soil Survey Regional Director job. In general, these are slight deviations of the Overall Duties, and are intended to show the differences in responsibility between the Career Levels.

Table 83. Career Level Duties – Soil Survey Regional Director

Job Duty	Manager
Provides leadership and management for assuring the scientific accuracy and technical quality of soil survey data throughout the MLRA region.	✓
Provides leadership for the development and implementation of the soil survey program in the Soil Survey Region.	✓
Provides leadership of program activities making work assignments, evaluating performance, interviewing candidates, making selections, and determining training needs; responsible for all correlation activities within region.	✓

Foundational Competencies – Soil Survey Regional Director

These are the more significant foundational competencies of the job, applicable at all Career Levels. The set of more significant foundational competencies and associated proficiency levels should differentiate the job from other jobs within and across the career groups. Proficiency Rating Definitions are included in the Appendix. This list includes the more significant competencies.

Table 84. Foundational Competencies – Soil Survey Regional Director

Foundational Competency	Proficiency Rating
	Manager
1. Attention to Detail	4
2. Accountability	4
3. Organizing and Prioritizing Work	4
4. Representing the Agency	3
5. Resource Management	3
6. Technology Management	3
7. Organizational Awareness	3
8. Adaptability and Flexibility	3
9. Continuous Learning	4
10. Initiative	4
11. Integrity and Honesty	4
12. Stress Tolerance and Resilience	4
13. Oral Communication	3
14. Written Communication	3
15. Influence and Negotiating	3
16. Conflict Management	4
17. Interpersonal Skills	4
18. Teamwork	3
19. Creativity and Innovation	3
20. Decisive Judgment and Decision Making	4
21. Information Management	3

Foundational Competency	Proficiency Rating
	Manager
22. Problem Solving	4
23. Customer Service	3

Many of the Occupational and Leadership experiences also address the foundational competencies.

Leadership Competencies – Soil Survey Regional Director

These are the more significant leadership competencies of the job, applicable at all Career Levels. The set of more significant leadership competencies and associated proficiency levels should differentiate the job from other jobs within and across the career groups. Proficiency Rating Definitions are included in the Appendix. This list includes the more significant competencies.

Table 85. Leadership Competencies – Soil Survey Regional Director

Leadership Competency	Proficiency Rating
	Manager
1. Fiscal Responsibility	3
2. Assigning, Evaluating and Monitoring Work	3
3. Developing Others	4
4. Human Resource Management	3
5. Team Building	3
6. External Awareness	2
7. Political Savvy	2
8. Vision	3
9. Strategic Thinking and Action	3
10. Relationship Management	NA
11. Leveraging Diversity	3
12. Public Service Motivation	2

Recommended Leadership Experience – Soil Survey Regional Director

These are the more significant experiences (e.g., stretch assignments), based on the Leadership Competencies, that an individual can participate in to prepare to be a viable candidate for the job.

Table 86. Recommended Leadership Experience – Soil Survey Regional Director

Leadership Experience	Career Level	Leadership Competency
Certifies spatial and tabular soils data	Manager	Strategic Thinking and Action
Manages communications with diverse audience groups	Manager	External Awareness
		Political Savvy
		Strategic Thinking and Action
		Relationship Management
		Public Service Motivation
Builds trust and relationships with internal and external customers through brainstorming activities, collaboration, assessing customer needs, identifying solutions, and strategic thinking	Manager	Political Savvy
		Vision
		Strategic Thinking and Action
		Relationship Management
		Public Service Motivation
Directs and advises training to field staff	Manager	Developing Others
		Team Building
		External Awareness
		Relationship Management
		Public Service Motivation
Drives internal awareness of regional and national policy, legislation, and science to address emerging agency issues	Manager	External Awareness
		Strategic Thinking and Action
		Vision

Leadership Experience	Career Level	Leadership Competency
Leads innovation in area of technical expertise	Manager	Strategic Thinking and Action
Approves field investigations	Manager	Relationship Management Strategic Thinking and Action
Develops, communicates, models, and implements the vision for a region	Manager	Vision
Develops a regional business plan including budgets, staffing, and goals	Manager	Fiscal Responsibility Political Savvy Vision Strategic Thinking and Action
Manages and resolves conflicts with regional stakeholders	Manager	Relationship Management
Fosters a positive team atmosphere	Manager	Team Building
Ensures workforce diversity through recruitment and retention	Manager	Leveraging Diversity
Communicates effectively to field staff to keep them informed regarding agency developments and accomplishments (e.g., monthly teleconferences, emails)	Manager	Team Building Political Savvy Strategic Thinking and Action Relationship Management
Develops and monitors performance plans and addresses performance issues and conduct problems as warranted	Manager	Assigning, Evaluating, and Monitoring Work Human Resource Management
Recruits, selects, and retains staff from within and outside the agency for Soil Scientists and other technical positions	Manager	Human Resource Management Leveraging Diversity

Occupational Competencies – Soil Survey Regional Director

These are the more significant occupational competencies of the job, applicable at all Career Levels. These competencies should differentiate the job from other jobs within and across the career groups. Proficiency Rating Definitions are included in the Appendix. This list includes all of the occupational competencies associated with the Soil Survey Regional Director job.

Table 87. Occupational Competencies – Soil Survey Regional Director

Occupational Competency	Proficiency Rating
	Manager
1. Soil Examination & Classification	5
2. Geomorphology & Hydrology	4
3. Soil -Vegetation Relationship Identification	5
4. Soil Attribute Database Management	4
5. Spatial Data Management	4
6. Soil Mapping & Correlation	5
7. Soil Interpretations & Land Use Guidance	5

Recommended Occupational Experience – Soil Survey Regional Director

These are the more significant experiences (e.g., stretch assignments), based on the Occupational Competencies, that an individual can participate in to prepare to be a viable candidate for the job.

Table 88. Recommended Occupational Experience – Soil Survey Regional Director

Occupational Experience	Career Level	Occupational Competency
Approves revisions to Official Series Descriptions (OSD)	Manager	Soil Examination & Classification
		Geomorphology & Hydrology
		Soil – Vegetation Relationship Identification
		Soil Mapping & Correlation
		Soil Interpretation & Land Use Guidance
		Soil Attribute Database Management
		Spatial Data Management
Certifies soil correlations	Manager	Soil Mapping & Correlation
Serves as the liaison to national headquarters and division leadership	Manager	Soil Examination & Classification
		Geomorphology & Hydrology
		Soil – Vegetation Relationship Identification
		Soil Mapping & Correlation
		Soil Interpretation & Land Use Guidance
		Soil Attribute Database Management
		Spatial Data Management

Occupational Experience	Career Level	Occupational Competency
Collaborates with State Soil Scientists	Manager	Soil Examination & Classification
		Geomorphology & Hydrology
		Soil – Vegetation Relationship Identification
		Soil Mapping & Correlation
		Soil Interpretation & Land Use Guidance
		Soil Attribute Database Management
		Spatial Data Management
Certifies spatial and tabular soil data	Manager	Soil Attribute Database Management
		Spatial Data Management

Recommended Trainings – Soil Survey Regional Director

These are the recommended trainings for individuals working to become a Soil Survey Regional Director. The set of recommended trainings and associated competencies should provide specific opportunities for individuals to better prepare themselves for the Soil Survey Regional Director job. Competency Definitions are included in the appendix.

Table 89. Recommended Trainings – Soil Survey Regional Director

Recommended Training	Career Level	Competencies
Capitol Hill Workshop	Manager	Developing Others (L)
		Team Building (L)
		Strategic Thinking & Action (L)
		Relationship Management (L)
		Public Service Motivation (L)
		Vision (L)
		External Awareness (L)

Recommended Training	Career Level	Competencies
Soil Survey Division - Conservation Engineering Division Leadership Workshop	Manager	Soil Examination & Classification (O)
		Geomorphology & Hydrology (O)
		Soil – Vegetation Relationship Identification (O)
		Soil Mapping & Correlation (O)
		Soil Interpretations & Land Use Guidance (O)

F = Foundational Competency; L=Leadership Competency; and O = Occupational Competency.

Recommended Education/Certifications – Soil Survey Regional Director

These are the recommended education/certification requirements for the Soil Survey Regional Director job.

Table 90. Recommended Education and Certifications – Soil Survey Regional Director

Education/ Certifications	Career Level
	Manager
Not Applicable	

Professional Associations – Soil Survey Regional Director

These two professional associations are recommended as resources for individuals interested in the Soil Survey Regional Director job.

Table 91. Professional Associations – Soil Survey Regional Director

Soil Science Society of America
Regional and State Soil Science Societies

Specifics by Job – Supervisory Soil Scientist – National Leader

Job Duties by Career Level – Supervisory Soil Scientist – National Leader

These are three major duties associated with the individual Career Levels for the Supervisory Soil Scientist – National Leader job. In general, these are slight deviations of the Overall Duties, and are intended to show the differences in responsibility between the Career Levels.

Table 92. Career Level Duties – Supervisory Soil Scientist – National Leader

Job Duty	Manager
Leads, manages, guides, and directs all activities of the Soil Survey Research and Laboratory Branch and ensures cooperation among its members and other National Soil Science Center (NSSC) Branches.	✓
Provides leadership in research efforts needed for the development of concepts, criteria and procedures required to properly name, classify, correlate, characterize, and interpret the nation's soils.	✓
Coordinates with scientists in other federal agencies, state agencies, universities and private organizations in selecting priorities and formulating research strategies and coordinating laboratory procedures.	✓

Foundational Competencies – Supervisory Soil Scientist – National Leader

These are the more significant foundational competencies of the job, applicable at all Career Levels. The set of more significant foundational competencies and associated proficiency levels should differentiate the job from other jobs within and across the career groups. Proficiency Rating Definitions are included in the Appendix. This list includes the more significant competencies.

Table 93. Foundational Competencies – Supervisory Soil Scientist – National Leader

Foundational Competency	Proficiency Rating
	Manager
1. Attention to Detail	5
2. Accountability	5
3. Organizing and Prioritizing Work	5
4. Representing the Agency	5
5. Resource Management	5
6. Technology Management	4
7. Organizational Awareness	5
8. Adaptability and Flexibility	4
9. Continuous Learning	4
10. Initiative	4
11. Integrity and Honesty	4
12. Stress Tolerance and Resilience	4
13. Oral Communication	4
14. Written Communication	4
15. Influence and Negotiating	4
16. Conflict Management	4
17. Interpersonal Skills	4
18. Teamwork	4
19. Creativity and Innovation	4
20. Decisive Judgment and Decision Making	4
21. Information Management	4

Foundational Competency	Proficiency Rating
	Manager
22. Problem Solving	4
23. Customer Service	4

Many of the Occupational and Leadership experiences also address the foundational competencies.

Leadership Competencies – Supervisory Soil Scientist – National Leader

These are the more significant leadership competencies of the job, applicable at all Career Levels. The set of more significant leadership competencies and associated proficiency levels should differentiate the job from other jobs within and across the career groups. Proficiency Rating Definitions are included in the Appendix. This list includes the more significant competencies.

Table 94. Leadership Competencies – Supervisory Soil Scientist – National Leader

Leadership Competency	Proficiency Rating
	Manager
1. Fiscal Responsibility	3
2. Assigning, Evaluating and Monitoring Work	3
3. Developing Others	4
4. Human Resource Management	3
5. Team Building	3
6. External Awareness	2
7. Political Savvy	2
8. Vision	3
9. Strategic Thinking and Action	3
10. Relationship Management	NA
11. Leveraging Diversity	3
12. Public Service Motivation	2

Recommended Leadership Experience – Supervisory Soil Scientist – National Leader

These are the more significant experiences (e.g., stretch assignments), based on the Leadership Competencies, that an individual can participate in to prepare to be a viable candidate for the job.

Table 95. Recommended Leadership Experience – Supervisory Soil Scientist – National Leader

Leadership Experience	Career Level	Leadership Competency
Drives external awareness in the division of policy, legislation, and science to address emerging agency issues	Manager	External Awareness
Develops, communicates, models, and implements vision for division	Manager	Developing Others
		Team Building
		Vision
		Relationship Management
		Leveraging Diversity
Identifies proper resources and leverages teams to meet division and agency priorities	Manager	Human Resource Management
		Leveraging Diversity
Communicates effectively with diverse audience groups including international audiences/cultures	Manager	External Awareness
		Political Savvy
		Strategic Thinking and Action
		Relationship Management
		Public Service Motivation
Develops operating plans including budgets, staffing, and goals (division-level)	Manager	Fiscal Responsibility
		Political Savvy
		Vision
		Strategic Thinking and Action

Leadership Experience	Career Level	Leadership Competency
Develops and proposes innovative initiatives to address strategic and political concerns/priorities for the agency and division (nationwide)	Manager	Political Savvy
		Vision
		Strategic Thinking and Action
		Public Service Motivation
Recruits and selects staff within and outside the agency for Soil Scientists and other technical positions	Manager	Human Resource Management
		Leveraging Diversity
Develops and monitors performance plans and addresses performance issues	Manager	Assigning, Evaluating, and Monitoring Work
		Human Resource Management
		Developing Others
		Leveraging Diversity
Ensures workforce diversity through recruitment and retention	Manager	Human Resource Management
		Leveraging Diversity
Markets agency mission in alignment with soil programs - with National Cooperative Soil Survey partners (internal and external)	Manager	External Awareness
		Political Savvy
		Relationship Management
		Public Service Motivation

Occupational Competencies – Supervisory Soil Scientist – National Leader

These are the more significant occupational competencies of the job, applicable at all Career Levels. These competencies should differentiate the job from other jobs within and across the career groups. Proficiency Rating Definitions are included in the Appendix. This list includes all of the occupational competencies associated with the Supervisory Soil Scientist – National Leader job.

Table 96. Occupational Competencies – Supervisory Soil Scientist – National Leader

Occupational Competency	Proficiency Rating
	Manager
1. Soil Examination & Classification	5
2. Geomorphology & Hydrology	5
3. Soil -Vegetation Relationship Identification	5
4. Soil Attribute Database Management	4
5. Spatial Data Management	4
6. Soil Mapping & Correlation	5
7. Soil Interpretations & Land Use Guidance	5

Recommended Occupational Experience – Supervisory Soil Scientist – National Leader

These are the more significant experiences (e.g., stretch assignments), based on the Occupational Competencies, that an individual can participate in to prepare to be a viable candidate for the job.

Table 97. Recommended Occupational Experience – Supervisory Soil Scientist – National Leader

Occupational Experience	Career Level	Occupational Competency
Manages national subject matter expertise in an area of specialization (e.g., soil taxonomy, soil database, GIS, (soil) interpretations, geomorphology, developing curriculum, ground penetrating radar (GPR) and electromagnetic imaging (EMI) technology, soil investigations and laboratory analysis)	Manager	Soil Examination & Classification
		Geomorphology & Hydrology
		Soil – Vegetation Relationship Identification
		Soil Mapping & Correlation
		Soil Interpretation & Land Use Guidance
		Soil Attribute Database Management
		Spatial Data Management

Recommended Trainings – Supervisory Soil Scientist – National Leader

These are the recommended trainings for individuals working to become a Supervisory Soil Scientist – National Leader. The set of recommended trainings and associated competencies should provide specific opportunities for individuals to better prepare themselves for the Supervisory Soil Scientist – National Leader job. Competency Definitions are included in the appendix.

Table 98. Recommended Trainings – Supervisory Soil Scientist – National Leader

Recommended Training	Career Level	Competencies
Not Applicable		

Recommended Education/Certifications – Supervisory Soil Scientist – National Leader

These are the recommended education/certification requirements for the Supervisory Soil Scientist – National Leader job

Table 99. Recommended Education and Certifications – Supervisory Soil Scientist – National Leader

Education/ Certifications	Career Level
	Manager
1. Bachelor's degree in soil science or related discipline, including 30 semester hours in biological, physical or earth sciences, with 15 of these hours in subjects like soil genesis, soil chemistry, soil physics, soil microbiology and soil fertility	✓

Professional Associations – Supervisory Soil Scientist – National Leader

These two professional associations are recommended as resources for individuals interested in the Supervisory Soil Scientist – National Leader job.

Table 100. Professional Associations – Supervisory Soil Scientist – National Leader

Soil Science Society of America
Regional and State Soil Science Societies

Appendix

Job Level Definitions

You will see “Entry”, “Mid”, “Sr”, “Dis Lead”, “Spv”, and “Mgr” career levels along with the necessary proficiency ratings for each of these levels. The table below explains the differences between each of the five possible career levels.

Specifically, it provides an overview of each job level, followed by a high level description of the experience/knowledge associated with the job level, the type of duties performed at the job level, and supervisory responsibilities at the job level.

	Entry	Mid	Senior	Supervisor	Manager
Overview	Starting level of a career. Consists of individuals entering a field of work for the first time, as well as those still early in their career.	Full performance level. Individuals at this level are skilled enough to be independent contributors.	Advanced performance level. Individuals have enhanced technical knowledge or skills in a field.	First-line supervisory level. These individuals supervise non-supervisors.	Advanced supervisory level. These individuals typically direct the work of an organizational unit, (including supervising supervisors) and are held accountable for the unit's progress.

	Entry	Mid	Senior	Supervisor	Manager
Experience/ Knowledge	Minimal work experience in the area and foundational knowledge to begin a career in the field.	Sufficient work experience and knowledge in the area to perform all core functions of the job.	Sufficient work experience and technical knowledge to be considered a subject matter expert in the field.	Sufficient work experience and knowledge in the area and organization to directly oversee the work of others.	Sufficient work experience and knowledge in the area and organization to direct the work of an organizational unit.
Duties	Performs basic position duties, often under close supervision.	Performs key duties of the position independently with little supervision.	Performs advanced position duties that may be based on: <ul style="list-style-type: none"> • Enhanced technical knowledge or skills in a field. • Extensive non-supervisory administrative responsibilities. 	Performs first-line supervisory duties (e.g., supervising employees, performance appraisals and leave approvals).	Performs managerial duties such as managing work plans, schedules, and resources in order to meet organizational objectives.
Supervisor Responsibilities	None	None	None	Supervision of some employees, but does not supervise other supervisors.	Supervision of other supervisors.

Proficiency Scale Definitions

We prepopulated the necessary proficiency ratings for each career level based on the competency models and proficiency ratings that you developed. The proficiency scale is a 5-point scale that is used to suggest how knowledgeable individuals should be on a particular competency:

1 – Basic

- Applies the competency in the simplest situations
- Requires close and extensive guidance
- Demonstrates awareness of concepts and processes

2 – Foundational

- Applies the competency in somewhat difficult situations
- Requires frequent guidance
- Demonstrates familiarity with concepts and processes

3 – Intermediate

- Applies the competency in difficult situations
- Requires occasional guidance
- Demonstrates understanding of concepts and processes

4 – Advanced

- Applies the competency in considerably difficult situations
- Generally requires little or no guidance
- Demonstrates broad understanding of concepts and processes

5 – Expert

- Applies the competency in exceptionally difficult situations
- Serves as a key resource and advises others
- Demonstrates comprehensive, expert understanding of concepts and processes